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FARM AND FIRESIDE.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter

Vol. XXIII. No. 13 EASTERN EDITION APRIL 1, 1901 TERMS { 50 CENTS A YEAR 24 NUMBERS

KISS ME

Where some of the small cuts in this advertisement have been cut into for convenience in arrangement the pictures themselves are full and complete. They are without doubt the finest and most popular pictures ever offered at so low a price.

We Will Send

Farm and Fireside the remainder of the year and any ONE of the pictures for

25 Cents

Farm and Fireside the remainder of the year and any TWO of the pictures for

35 Cents

(When any one of these offers is accepted no commission will be allowed and the name cannot count in a club)

THE WOODLAND MOTHER

No such collection of high-class pictures has ever been offered on anything like our liberal terms. Having gone to great expense to prepare for the production of these pictures, we are offering them absolutely without profit to ourselves.

PHARAOH'S HORSES

WATERFALL BY MOONLIGHT

SIZE

The pictures including margins are twenty by twenty-five inches in size, FIVE HUNDRED SQUARE INCHES, or about *four times* the size of this printed page. Without margins they are about sixteen by twenty inches.

VALUE

Art-stores are now selling engravings of these famous paintings at from $2.50 to $10.00 each. Many competent judges, having made a careful comparison, pronounce our reproductions more attractive and desirable than these very expensive engravings.

IMMACULATE CONCEPTION

For other pictures see next page

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

Offer Extraordinary

In order that everybody may get these pictures, which are undoubtedly the most popular series ever issued, we are making two new and special offers whereby they may be had with Farm and Fireside for the remainder of the year for less than the actual wholesale price of pictures alone.

DO NOT FAIL to take advantage of this exceptional opportunity **AT ONCE.** The paper alone is worth the price.

THE STRAW YARD

CHOOSE FROM THIS LIST

AFFECTION	*Holmes*	No. 783
IMMACULATE CONCEPTION	*Murillo*	No. 784
PHARAOH'S HORSES	*Herring*	No. 785
QUEEN OF FLOWERS	*Lefler*	No. 786
AFTER WORK	*Holmes*	No. 787
CHRIST BEFORE PILATE	*Munkacsy*	No. 788
DEFIANCE, or STAG AT BAY	*Landseer*	No. 789
KISS ME (Child and Dogs)	*Holmes*	No. 790
THE LITTLE SHEPHERDESS	*Koller*	No. 791
PORTRAIT OF WASHINGTON	*Stuart*	No. 792
THE FINDING OF MOSES	*Schopin*	No. 793
CAN'T YOU TALK?	*Holmes*	No. 794
WATERFALL BY MOONLIGHT	*Rieger*	No. 795
THE HORSE FAIR	*Bonheur*	No. 796
WASHINGTON CROSSING THE DELAWARE	*Leutze*	No. 797
THE WOODLAND MOTHER	*Carter*	No. 798
THE STRAW YARD	*Herring*	No. 799
IN MEMORIAM	*Edwards*	No. 800

CAN'T YOU TALK?

FILL OUT THE COUPON

below and inclose it to us with **TWENTY-FIVE CENTS** and you will receive Farm and Fireside the remainder of the year and any one of these

PEERLESS PICTURES

AFFECTION

DEFIANCE, or STAG AT BAY

Quality The pictures have been selected with the greatest care, keeping in mind that they should be artistic, pleasing and inspiring. As such they will be ornamental and an influence for good.

AFTER WORK

THE LITTLE SHEPHERDESS

We will send Farm and Fireside the remainder of the year and any ONE of the pictures for ..... **25 Cents**

We will send Farm and Fireside the remainder of the year and any TWO of the pictures for ..... **35 Cents**

(When either one of these offers is accepted no commission will be allowed and the name cannot count in a club)

Publishers FARM AND FIRESIDE, Springfield, Ohio

Please send me the FARM AND FIRESIDE the remainder of the year, also

Picture No.....for which I inclose.....cents.

Name.....

Street and No.....

Post-office..... State.....

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

Vol. XXIV. No. 13 EASTERN EDITION APRIL 1, 1901 Entered at the Post-office at Springfield, Ohio, as second-class mail matter TERMS { 50 CENTS A YEAR 24 NUMBERS

TRANSITION STAGE OF WESTERN RANGES

By H. A. Crafts

MARKED changes are now being wrought in the live-stock business of Colorado and neighboring states and territories. While cattle still occupy a prominent position, it is quite apparent that they have lost their grip as a range animal, and sheep are taking their place. It was only the other day that a well-known stockman of New Mexico made the statement that in that territory the range business in cattle had about ceased. In Colorado there still exist numerous large herds, but they are widely scattered and are gradually succumbing to the inevitable. There are many small herds, but their grazing-grounds are confined almost wholly to the foot-hills and parks of the Rocky Mountain range. They are pastured partly on deeded land, leased land and public land. But the last-named is getting so scarce that the cattleman who cannot command some pasturage of his own is likely to be left out in the cold.

Large tracts of school lands are being selected from the public domain and leased to live-stock men, principally sheepmen. An unusually large amount of railroad land is also being sold or leased, all of which is removed from the open range and the latter to a like extent curtailed. This leaves open for public grazing fragmentary parcels of the poorest part of the range, which precludes the possibility of successfully ranging cattle upon them. Here is another circumstance that inures to the benefit of the sheepmen. While these refuse tracts of grazing-lands are unfit for cattle-ranging, they do very well for sheep, as the latter will clean up the range as far as they go, whether it be good or bad. The sheepmen having driven the cattlemen from the field by occupying the best parts of the range are left in possession of the poor parts as well, so they are left in almost absolute command of the situation.

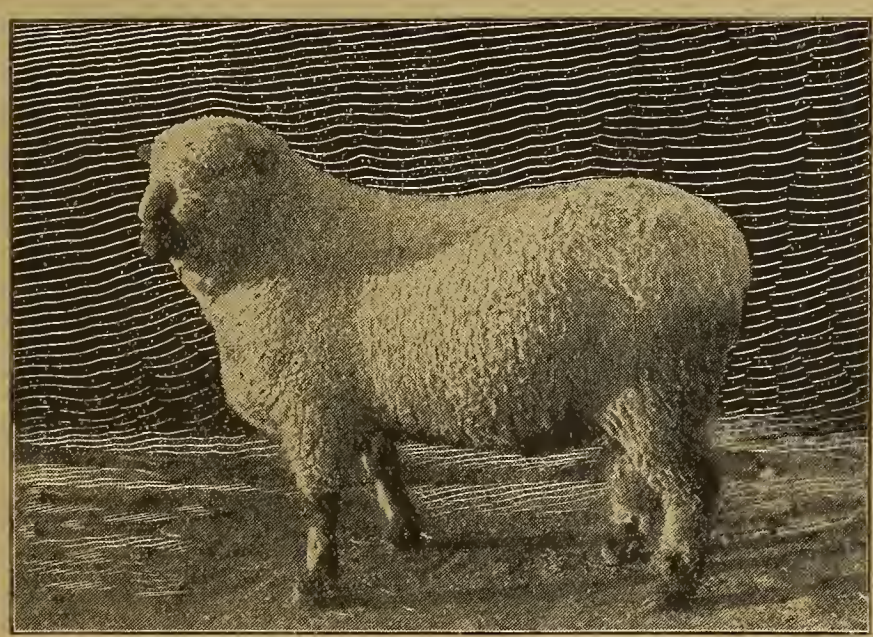
These, with other existing conditions, have given the sheep business an actual boom. Among the other conditions is the great success attending the feeding of lambs for the Eastern markets. The appetite for tender mutton suddenly acquired by the meat consumers of the country appears to grow upon that which it feeds. Though the feeding industry has more than doubled in the past few years, the cry is still for more, and the lamb crop of the great ranges is taxed to the utmost to supply the raw material. At Fort Collins, the center of the feeding industry of northern Colorado, the sheep-trains began pouring in early in September, and had not ceased to arrive at New-Year's.

This movement in sheep has also awakened an interest among feeders as well as breeders as to the best breeds to employ. Up to the present season the feeders for the pens were secured almost wholly among the Mexican sheep of southern Colorado and New Mexico. These were of the Merino order—small-bodied and short, fine-wooled. Now it has been discovered that a larger-bodied and longer-wooled animal is the most profitable to feed. This discovery has brought the Shropshire to the front, and the black faces are staring the public complacently in the face. Some are crossing the Shropshire with the Merino, thinking thus to secure a more desirable cover of wool.

Recognizing the conditions stated, the farm department of the Colorado State Agricultural College, under the supervision of Prof. B. C. Buffum, the newly appointed agriculturist, is shaping its course not only to instruct the students in the necessary knowledge of stock-breeding, but to aid the farmers of the state in breeding those lines that shall prove to be of the greater utility. Prof. Buffum in an interview the other day sounded the key-note of the situation. He said, in part, "Colorado is just entering fairly upon the transition stage between the open-range stock business and the era of more careful farming and better grades of stock. The question of stock feed has been easily solved by the production of alfalfa, and the farmers are now turning their attention not only to grade animals, but to thoroughbred stock of the best breeds. Undoubtedly the favorite breed is the Shorthorn, with the Hereford and Polled Angus leading in some sections. . . . The feeding of lambs is becoming of great importance in Colorado, and the college hopes to induce those who are raising breeders to raise a larger, quicker-maturing lamb. The Shropshires are coming into great favor not only as a mutton-sheep, but as one producing wool of a fine quality."

Too many beef skeletons whiten the plains of Colorado to recommend the range-cattle business either to the business man or the humanitarian. The sheep, on the other hand, is a natural forager, and being clothed with a warm fleece is able to withstand the rigors of a hard winter better than its bovine competitor. It is necessary that they be constantly in charge of a herder, while cattle are turned loose to shift for themselves. It looks like more mutton, more wool, better beef and more money for the live-stock man.

BUNCH OF SHROPSHIRE EWES—COLORADO STATE AGRICULTURAL COLLEGE



WOOLEY, THOROUGHBRED SHROPSHIRE RAM—COLORADO STATE AGRICULTURAL COLLEGE

FARM-LAND TOO CHEAP

By D. W. Working

The editor of a prominent agricultural paper published east of the Mississippi River thinks land is too cheap.

It would be "far better for the country," he says, in a personal letter, "if we could lock up all our arid land and forget all about it for a century. Land is much too cheap now—ought to be worth four times what it is."

Can it be that this wise man from the East would have the people of the arid region locked up and forgotten, as well as their land? Can it be that prejudice rather than sound reason is behind his emphatic assertion?

It is not uncommon to see young men from the country whose excuse (or defense) for going to the city is that land is so dear that they cannot buy it. The land cannot be made to pay for itself, they say; and many a very successful farmer can be found to justify the excuse. "Back to the land" is a saying often seen in agricultural papers; and it has a good sound and is not lacking in sense. But it assumes that some one or some thousands have gone away from the land. How could they go back if land were "worth four times what it is?"

It is not forgotten that there are strong and sound objections to the project to reclaim the dry lands of the West at the rate of ten or fifteen millions of acres a year, and at government expense. It is not forgotten that the popular objection to such reclamation has its root in the general impression that the agricultural depression of the seventies and eighties was due in large part to the rapid development of the West which followed the building of the great transcontinental railroads. It is conceded that the general impression is correct; and it is conceded further that the farmers of the states where irrigation is not practised would be injured by the addition every year for a decade of ten million acres to our irrigated area.

But—and this is worth remembering—it is not possible to add ten million acres a year to the irrigated area of the arid states. The land is here—whole deserts of it—but not the water. The land is here in abundance, but the water cannot be obtained—either from the clouds, the rivers, the lakes or from the bowels of the earth. There is water that can be stored, but not the next year or the year after. Scores of years will pass before the surplus waters of the arid region can be made available for the use of irrigators. And when it is all saved for use (a hundred years hence) there will not be enough to water a quarter of the thirsty acres of the Western plains. The Eastern farmer need not fear. He has been deluded into believing the dream of some wild Western promoter, or has heard the promoter's dream denounced by some wilder Eastern man, who puffed it up in order to make it seem more dangerous.

The farmers of the East who would "lock up" the arid lands for a century in order to quadruple the price of their lands may live to see their sons looking for work on the streets of the great cities because there is no cheap land in the West. Those who have lands to sell may well wish for higher prices, just as those who have money to lend wish for higher interest-rates. Those who expect to live on their farms, or buy farms, may well wish that land might not increase in price.

There is good reason why land should not increase in rental value while money is decreasing in power to earn interest. When the skill and industry of the farmer win good returns from his land, the increased product must be credited to the man and not to the ground. So, also, when the thrift and foresight of the merchant enable him to accumulate money, the increase must be credited to the man, not to the capital invested. Land and money are necessary and are not to be undervalued; but the man who is not more valuable than either is less of a man than he ought to be. It is one of the good signs of the time that men are increasing in value when compared with money—wages going up, interest going down. And the farmer ought to increase in value more than the land.

Of course, the writer would not have the farmer injured in his person or his property for the sake of developing any industry or any part of our country. He would not have the farmer taxed to build ships for the merchants, or have the merchant taxed to dig ditches for the farmer. He might be willing to have both of them taxed to benefit the whole country by making new opportunities for all its people.

FARM AND FIRESIDE

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We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

WITH THE VANGUARD

FROM a German periodical the "Literary Digest" republishes the following views of Professor Molden, of Vienna, on America as a political factor in the twentieth century:

"The two most powerful forces in the new century will be Russia and the North American republic; and to a great exteut the fate of the English empire will depend on what these countries do or do not do. Of these two colossal empires the American republic occupies a favored position. In population it indeed does not equal Russia, but it surpasses that country in energy and practical intelligence, and is the superior of all other nations numerically, having more than forty per cent more inhabitants than Germany and a still greater lead over England. To this must be added the fact that it possesses an advantage over Britain in having a compact territory, which even in the time of war could supply its own needs and wants undisturbed by any foe; and over Russia and Germany it has this advantage, that its borders touch upon military powers against which it must not keep on its guard. It is like a mighty island, and as such it will be almost beyond attack from the day when it shall have a navy that can cope with the vessels of England, and that day is sure to come in the near future. Then, too, America is not under the necessity of keeping a large standing army after the manner of the continental powers of Europe, but is nevertheless able to maintain an armament sufficiently large to meet European nations, with the exception of Russia, on non-European territory.

"Now that the wild period of primitive development is passed, and the interior of the country has been settled, the native energy and inherent activity will seek fields of operation elsewhere, as shown already, though in a most awkward manner, by the Spanish-American war. It is possible that revolutionary agitations will not be wanting in the development of this new policy, and they certainly would not be so entirely without significance as such movements are in the republics of Central and South America, but would probably assume the form of a reaction against the autocratic sway of capitalism; but these would all end in securing an unwonted power for some military leader, for it is not at all impossible that out of these upheavals an American Bonaparte should arise. At any rate, this is no more than natural, that with the wonderful reserve power which is found in American life there will be no lack of excellent soldiers and military leaders. A wonderful field of activity no doubt awaits the new world, although no prophet can with a certainty predict in which direction this spirit of push and progress will make itself felt most. America, being in many respects an England in potentiality, has also this in common with that country, that it is a mobile and elastic democracy that is without the hindrance of universal military duty. All the more easily can it become a danger for all that come within the sphere of its operation—not only the other American republics, but also the Germans, the Dutch, the French (in their possessions in the Pacific), and the English in Canada."

BASING the statement on reports covering the winter-wheat area received during the second week of March the "Cincinnati Price Current" says that the condition of the growing-wheat crop as a whole may be regarded as good. "There has not been," it says, "much complaint on account of freezing and thawing, and the fly is not yet showing up to a great extent. However, the effects of the fly are not expected to be made evident until the growing season, and there is still more than a month before the crop passes what is called the critical stage—the freezing and thawing season after the breaking of winter.

"The harvest yield this year, therefore, can be approximately estimated by studying the effects of the weather conditions between the middle of March and the middle of April, and the spring work of the Hessian fly.

"The government report," says the "Price Current," "of 128,100,000 bushels of wheat in farmers' hands on March 1, or 24.5 per cent of the 1900 crop, compared with 158,700,000 bushels, or 29 per cent of the 1899 crop, on March 1, 1900, was as low as the trade generally expected; however, it was unable to sustain prices. Unless something adverse should happen to the growing-wheat crop in some part of the world it is difficult to see anything in present wheat situation to raise essentially the price from its present level."

CONCLUDING an interesting article on the business situation in the United States in the "North American Review" for March Mr. Charles R. Flint says:

"Our interstate commerce to-day is the largest trade carried on anywhere in the world under conditions of absolute free trade. Therefore, even if Europe were in a position to form an 'Economical Alliance' against the United States, our mills and factories would still be kept busy supplying the needs of our own people.

"And we are being called on, more extensively each day, to supply the needs of that vast region on the other side of the Pacific which has just been opened up to our trade. China, Japan, Corea, Asiatic Russia are fields for our enterprise on a scale until recently undreamed of. China alone has 400,000,000 people—more than the whole of Europe. The same conditions that have made us supreme in trade across the Atlantic will give us control across the Pacific. We will overcome both European and Asiatic competition, thanks to our mechanical genius.

"It is my firm belief that the time is not far distant when our commerce across the Pacific will be as heavy as it is to-day across the Atlantic. This condition will be enormously facilitated by the construction of an isthmian canal.

"A promise of what the future has in store for us in this direction has already begun to manifest itself. In less than seven years our trade with the East has been trebled. In 1893 we sold China, Japan and the other countries comprising Asia and Oceania thirty-million dollars' worth of goods. In 1899 we sold them ninety-one millions' worth. As soon as China is pacified and normal conditions are restored there and elsewhere in the East our trade will progress at a rate that will make even this startling increase seem insignificant. A factor that will help us materially in the development of this trade is the trans-Siberian railroad. With the completion of that road there will be open to us a vast new territory, to which we will have access under conditions that favor us in every respect. For all practical purposes this railroad is a continuation of our transcontinental lines, the Pacific steamers serving as ferries. We will be nearer the markets through which this route runs than any country of Europe. The country traversed by the trans-Siberian road is purely agricultural. Its manufactures, like the manufactures of Russia herself, are unimportant. Already we have supplied Russia with most of the material used in building the railroad; and as the country settles and the demands of the people for manufactured goods grow they must look to us to supply them.

"The whole world is adding to our wealth, and here in America all the people are sharing in the prosperity that has come. Any one who doubts this, and who pays heed to the oft-repeated outcry against the centralization of wealth, need only study the statistics of the savings banks. In New York state the people have deposited in the savings banks over one billion dollars, a growth in two and one half years of two hundred and fifty millions, in round numbers. The deposits are earning for their owners more than thirty million dollars a year. There were, in round numbers, over two hundred thousand depositors who had accounts with savings banks. Their average deposits were $452.89. Great Britain's average was only $96.57. Prussia's average was $155.91, while Austria-Hungary, which country ranks next to the United States, averaged but $220.47 to each depositor."

COMMENTING on the opening administration of the twentieth century "Bradstreet's" says:

"A circumstance which will make the administration of the present president memorable is that, as one of the results of the war with Spain, the flag of the republic has been sent over 'unpathed waters' to 'undreamed shores,' and the nation has assumed, in a sense in which the expression could scarcely be used before, the position of a world-power. There are patriotic citizens who have regarded this emergence of the United States into wider relations with anxiety, but the result of the last electoral contest would seem to indicate that that feeling is not shared by the majority of the people. It is the sentiment of that majority which finds expression in the second inaugural of President McKinley, who says that 'our institutions will not deteriorate by extension, and our sense of justice will not abate under tropic suns in distant seas,' but that 'as heretofore, so hereafter, will the nation demonstrate its fitness to administer any new estate which events devolve upon it.' This is an expression, albeit in sober terms, of that 'consciousness of a young, renewed and vast strength or trust in a dazzling, certain and limitlesss future,' which Rufus Choate once declared to be the key-note of the thought and feeling of the great republic.

"With the new outlook upon the world on its political side which has come to characterize our statesmanship it seems inevitable that there must come about a modification at least of its trade policy. This may be brought about insensibly and without any declaration of conscious purpose, but come about it will. The nation to-day leads the world as an exporter. Its manufactures are sent to almost all lands beneath the sun where the appliances of civilization are in demand, and it has demonstrated its ability to find and hold markets which are not among the easiest to reach. In the long run, however, we cannot sell without buying, and the question can no longer be asked, 'What have we to do with abroad?'

"A recognition of this is manifested in a passage in the President's inaugural, in which he says that our diversified productions 'are increasing in such unprecedented volume as to admonish us of the necessity of still further enlarging our foreign markets by broader commercial relations,' and that 'for this purpose reciprocal trade arrangements with other nations should, in liberal spirit, be carefully cultivated and promoted.' The feet of the nation are indeed being set in broader paths with the opening of the new century, and no doubt will miss some of the safeguards involved in limitations. It is not, however, presumptuous to hope that with the increased sense of power there will develop an added feeling of responsibility, and that the people will realize that there is never greater need of conservatism of thought and action than when the gates of power and opportunity are opened widest."

THE ON-LOOKER

As I stood in the post-office awaiting my turn at the delivery-window a placard caught my eye, bearing this peremptory statement, "No whistling allowed in this room." Now, I cannot whistle. Inability on my part when a boy caused no little grief to my mother, I know. In her mental pictures had been a boy about the farm home who would cheer the daily work with much whistling. In this respect I was a sad failure. But, standing in that post-office, I had never wanted to whistle so badly in my life. Why should my rights be abridged by an official in this way? 'Tis true nature had done the abridging, but I wanted to whistle, and felt I must. It was in the same county, but in another post-office, another placard greeted me with this announcement, "No profane language is permitted here." Profanity, like whistling, is not one of my sins. It does not appeal to me as cultured, intellectual, useful or righteous. I have never needed profanity in the expression of my views, and yet that prohibition was suggestive. So long as we are distinctly human, when we believe that we cannot do a thing, that thing will take on a degree of attractiveness.

Some simple-minded folk have the impression that most farmers are farmers because they are not fit for anything else. What a notion, to be sure, when more intelligence and broader judgment are needed in farming to-day than in doctoring or lawyering! But I must admit that some men are farming unwillingly, and that simply because they do not see the door open to some other trade or profession. They were not trained for other work, and have the common frailty of wanting to do and to be something they cannot now do and be. The merchant or lawyer hungers for a farm and farm-life, with its freedom, and the farmer craves the work he is unable to do. He spoils his life wishing he was what he is not. Each man's daily work seems common to him. Its hardships are near at hand and look big, filling his vision. The joys are dulled by daily use. If we could rise out of ourselves and see our points of vantage hard lines upon our faces would soften into smiles of gratitude that we are what we are, and that opportunities are so great. But we do not do this, and we shall continue to want to whistle when prohibition prohibits, and to imagine that the other fellow got the better berth.

The law of compensation is actively at work in this world. The farmer learns that markets are better in another state, but the drawback of high-priced labor is not known. He is told of the fertility of a remote section, and forgets that transportation lines levy tribute. He reads of cheap and fertile land in a far state, and fails to see that the low price indicates the absence of "home" value.

There are farmers in stock-growing sections who should have been truckers or orchardists in other sections. Misfits are unfortunately in evidence everywhere. But I observe that the sensation of misfitness very often takes its rise in our desire to do what we are prohibited by nature or training from doing. It is a misdirected form of restlessness. A degree of dissatisfaction with self is a proper thing to have. Perfect self-complacency is enough to distract associates. We want ideals beyond; but I am sure that the wise man places his ideals along the line he is traveling. He uses his dissatisfaction with his attainments to spur himself to effort, but he is too wise to ride cross-country. He places his gods along the line he is on. They may be more than a life's journey ahead, but they are where they help him to advance.

It is a glorious day in which we farm, because the brain is called into action as never before. Does the farmer believe that he has latent ability of any particular sort? Pray, what occupation will afford him more opportunity for developing it? The farm is the place for action and for study. The young man can find in farming to-day facilities for development of nearly every kind of ability. Set up your standard and think your way out. Then work it out. Who has not cause if he be weak enough to stop! The farm is the open doorway to study of nature, to mastery of soil, of plants, of animals, to influence in community, in church, in schools, in politics, to student's work through courses of home study, to character-building, to success in a hundred avenues. Failure is due to inability to seize the opportunity and to pay the price, which is labor. O—L.

ABOUT RURAL AFFAIRS

Fruit-growers' Associations When a body of men, nearly one hundred in number, can be induced to meet, many of them hundreds of miles from home, to spend days in discussion and to start a new organization with twenty-four life members and nearly seventy annual members—all without being induced to do so by much effort or advertising—there must be some strong reason for their action. New York State fruit-growers did all that. The meeting in Syracuse was all that could be expected, and it seems quite likely that the prime movers "builded better than they knew." The first steps toward effecting the new organization may have been dictated by feelings of dissatisfaction with the management of the Western New York Horticultural Society, but the time seems to be ripe for a closer union of the fruit interests not only of New York state, but of the entire country. Our horticultural societies are built up almost exclusively on educational lines. They embody interests liable to come in conflict with one another, like that of the fruit-grower and nurseryman. The New York state fruit-growers have taken the bull by the horns. They wanted an organization with a unity of interests and of purpose, for mutual protection and material advantages. They felt that it is not enough to be told how to grow fruits and to fight fruit enemies. They desire to devise ways and means to get more money for what they do produce, and in cases of emergency to be able to exert a greater influence for their own welfare in our legislative halls. One of the most important objects of the new organization is the gathering and compilation of fruit-crop statistics on which safe estimates of prices can be built. It will be seen that the new association is meant in the first place for the commercial fruit-growers, and yet it is not intended to exclude home growers who take an interest in any of these things. But after their recent experience in Rochester the members of the new association thought it wise to put up safeguards against a possible packing of their meetings by interests inimical of the true interests of the fruit-grower, and consequently a clause was inserted into the constitution or by-laws giving the executive committee power to pass on the qualifications of each proposed new member.

No doubt that the new organization will grow like a weed, although it may do so by drawing heavily on the membership of the older horticultural societies. But a strong pull, and a pull altogether, of the individual fruit-growers seems absolutely needed in these times of organization. The nurserymen came to this conclusion long ago, and they organized the Eastern Nurserymen's Association, with aims and purposes which in some instances and in some measure were antagonistic to the interests of fruit-growers. The latter cannot sit idly by much longer. Now, imagine a move similar to the Syracuse affair being made in every state of the Union which has considerable fruit interests, and then all these state associations forming a league and acting in harmony for the common interest. What a power for good the new move will be!

San Jose Scale So far as the San Jose scale and the desirability of compulsory fumigation of nursery stock are concerned, every man in the United States who has a place with a tree or vine on it has interests in common with the commercial fruit-grower. The scale has been scattered far and wide, and there are now thousands of centers of infection. Not only orchards, vineyards, small-fruit patches and nurseries are infected, but the insect may even be found along the fence-rows and in the woods in various locations. It is liable to make its appearance anywhere any time. When it does it means either prompt efforts to keep it in check or the destruction of the infested trees or plants. Good work in controlling the scale has been done in some of the Southern states, especially Maryland, but fruit-growers all over are becoming awake to the situation. Currant-bushes seem to be especially subject to the infection. I find the scale most numerous on Bartlett pears and Greening apples. Professor Gould, acting entomologist of Maryland, gives the following advice in regard to the treatment of affected trees:

"It is unsafe to spray peach-trees with kerosene when they are perfectly dormant. After the sap begins to ascend in the spring there is little or no danger of serious injury from a twenty-per-cent mechanical mixture of kerosene and water. Hence, the spraying (in bud) should not begin before March 20th or about this date. Apply at this time a twenty-per-cent mixture. This mixture can be applied any time up to the blossoming of the trees. Trees badly infested might well be sprayed twice during this time, but if the trees have become weakened it is best to destroy them at once. . . . The spraying can be continued with safety on strong, healthy trees after the fruit has set. . . . All portions of the trees should be thoroughly moistened, but care must be taken that the mixture does not run down about the crown of the trees in any considerable quantities. Crude petroleum having a test of no less than forty-three degrees may be used while the trees are dormant instead of twenty-per-cent kerosene. To facilitate the operation the trees should be somewhat severely headed in before the spraying is begun. This is emphatically true if the trees are seriously infested. Subsequent treatment should not be neglected. About June 15th any live insects will begin to multiply, and the young can be seen crawling if they exist. The owner should learn to detect them, which is not a difficult matter, and whenever he finds a tree on which they are numerous it should at once be sprayed with a ten-per-cent mixture. This weaker strength will destroy the young insects. By following up the matter in this way I am fully convinced that the insect can be controlled."

Copper Sulphate for Weeds It is reported that copper-sulphate solutions can be used with apparently good effects in killing weeds in grain-fields. A field in wheat being exceedingly weedy has been sprayed with a ten-per-cent solution when the wheat-plants were three to five inches high, with the result of cleaning it of ragweed, wild barley, wild buckwheat, pennycress, etc. The application was made June 1st. The wheat-leaves were burned slightly at the tip, but the yield was considerably larger than that of an adjoining untreated plot. Even a one-per-cent solution of copper sulphate was found to kill ragweed, mustard and some other weed pests. The amount of liquid used in the experiments was approximately forty gallons to the acre, and the results indicate that spraying for the destruction of weeds in cereal crops can be carried out on an economic basis. This is at least worth the trial. I have not experimented in this line, but will try solutions of copper sulphate in the strength of from one to ten per cent on onion seedlings on the greenhouse bench.

A Jail Cure A rich club-man in New York City who remained a prisoner in jail for seventy-four days rather than pay the alimony awarded by the court to his divorced wife stated that the life in jail had strengthened his digestion, added ten pounds to his weight and greatly improved his physical condition. The New York "World" commented on this as follows: "The jail regimen, of course, compelled regular and sufficient hours of sleep, early rising, plain food, stated exercise morning and afternoon, and abstention from strong drink. Such a course of life is in its main features what every person of experience and common sense knows to be conducive to health. But is it actually necessary to submit to compulsion in order to secure it? Is the average man or woman really so deficient in moral courage as to be unable to do the things that make for health without paying a doctor or going to sanatoriums or taking the jail cure?" I imagine that the man's purpose had something to do with the good results reported. He had an object in view—worthy or otherwise—to defeat his divorced wife's claims on his purse. In a measure his stay in jail was voluntary, and was a source of satisfaction to him rather than of annoyance or worry. It was in perfect harmony with his feelings, and did not in any sense disturb his equanimity or contentment. A good many people worry themselves into sickness. Perfect ease of mind is as necessary as any other feature named in the foregoing list for the physical well-being of people. If we cultivate contentment, avoid worry and excitement, we will have good sleep and good digestion, and then have only to abstain from excesses in eating, drinking, etc., in order to have a chance for enjoying good health.

T. GREINER.

SALIENT FARM NOTES

Hired Men Let me say to S. R. D., Wisconsin, that the greater part of the trouble he meets with in the management of hired men comes through himself. I was a farmer's hired man nearly ten years, and worked for almost all varieties of men. I was young then, and of course had my own ideas respecting the rights, privileges and immunities of the hired man, and when I think of them at the present time some of them give me a feeling much akin to that one has when he thinks of his first attempts at sparking. What a billy-goat one is at different periods of his existence. But then one has the satisfaction of knowing that everybody else has his "spells." Throw a stone into a crowd and you are certain to hit a man who has often secretly wished a light-footed mule had favored him with a trip-hammer tap at some period of his existence. As we grow older we have to quietly smile at the odd ideas of the undeveloped youth, even though they annoy us at the time. I worked for men who got no more service than I was obliged to render, and for others who received all I was capable of. The first called me a mighty poor hand, while the last declared I was one of the best they ever employed. One tried to drive me to the limit of endurance; the other treated me like a human being. One seemed to think that exposure to the worst weather was good for my health, and that meals at any time of day or night should be satisfactory; the other interested himself in my physical comfort, and appeared to think the better I was treated the better service he would get. He was right!

When a farmer secures a man that is a careful and painstaking workman he should try to keep him for years. In the cities and villages we find clerks and salesmen, lots of them, who have worked in the same store ten to twenty years. They have learned that their employer's interest is theirs, and they are as much interested in building up a trade and holding it as he is, and they do not hesitate at working overtime when business demands it. They are paid extra for it, and they feel that the amount is so much clear gain. The more valuable the services of a salesman become to his employer the higher his salary rises, simply because his employer can afford to pay him more for his work. I have known men to work on the same farm up to six years and their wages were never raised one cent. When I look back to the time I worked on a farm one year I can plainly see that my services were actually worth three to five dollars a month more to the farmer the second year than they were the first, because I knew every foot of the farm and his method of managing it, understood the stock and knew how he wanted it fed and cared for; knew all about the implements, and could put my hand on anything needed at a moment's notice; knew what repairs were needed, and could, if occasion demanded, have gone right along with the farm-work for a year on the lines followed by my employer; yet he thought a raise of one dollar a month was ample for my knowledge of his farm and his methods.

One may sometimes think he is saving and yet be wasting. It takes time to acquaint even a good hand with a farm and the lines upon which it is managed, and while he is learning his services certainly are less valuable than after he has acquired a full knowledge of them. I am well satisfied that it will pay the farmer well to raise the wages of a good, tractable hand three to five dollars a month the second year. I have known farmers to do this—to pay a man five to seven dollars a month more than the "going wages," and he actually was worth double what a common "month by month" hand was. A wide-awake, live, intelligent salesman is encouraged in his efforts to be watchful of his employer's interests and to build up his trade. The more efficient his services, the higher his wages. On the other hand, the live, intelligent farm-hand meets with little, if any, encouragement in the matter of compensation to especially exert himself in advancing the interests of his employer or to seek a long term of service with him. And for this very reason the brightest and best of the boys have sought service in the towns and cities. There they think they see a chance to rise, while as a farm-hand they see none. Farmers complain about the poor class of help seeking employment on the farm when their own sons have gone to the cities to seek a livelihood rather than become an illy-paid drudge on the farm at "going wages." They have driven the brightest boys to town by undervaluing and underpaying skilled farm help. FRED GRUNDY.

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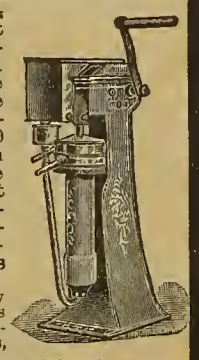

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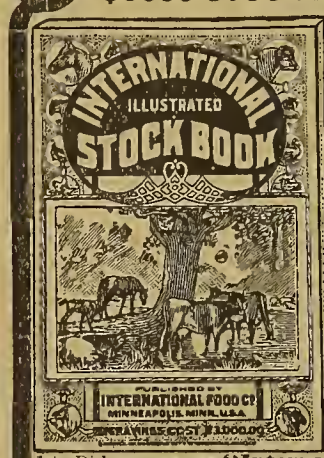

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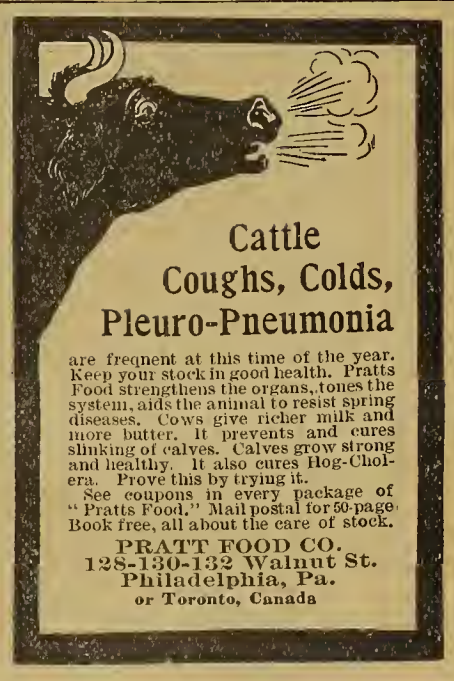

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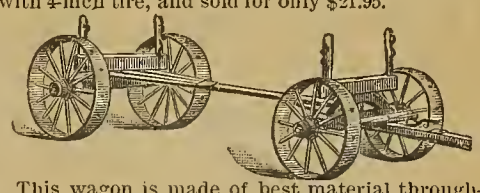

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OUR FARM

FARM THEORY AND PRACTICE

Seed-potatoes.—Failure to secure good crops of potatoes is dne more often to poor seed than to any other one cause. The tuber is not the true seed of the plant, of course, but it is simply a stem, an enlarged underground stem. If the old plant was lacking in vitality, the cutting, or seed, used in starting another plant the next year will be lacking in vitality. If a tuber is undersized because it comes of poor stock it cannot give us a plant that will be as productive as it should be. Or, having come from a strong vine, if the cells leading to the eyes supply their best material to sprouts that must be rubbed off before planting-time, such seed cannot make as strong plants as it would have done if sprouting had been held in check until plants were wanted.

Potatoes possess the greatest vigor when grown in a cool climate. Intense summer heat cuts vitality down. It is an established fact that potatoes grown in New York and Michigan make better plants than those grown further south. There is more vitality to start with, and there is less inclination to start the buds and lose vigor before planting-time in the spring. I am very sure that many growers would make money by discarding their old stock of home-grown potatoes and buying seed from a higher latitude. The loss of much money as a result of failure to do this has come under my observation. Each spring I plant one hundred and fifty to two hundred bushels of Northern-grown seed, and the experience leads me to nrge growers to test the relative value of the Northern seed by planting a few bushels, at least, by the side of the home-grown seed if the planting is south of the states named. The experiment may open the way to more income from this crop.

Peas in the North.—A reader in central Illinois asks, "Which wonld be most profitable for me, Canada or cow peas? If allowed to seed, would either of them become a nuisance as a weed? What kind of a drill should be used in planting the Canada pea? How much hay will it make an acre, and where can the seed be gotten?" Central Illinois is on the line between the belts in which these peas do best. It is too hot for the Canada peas most seasons, and rather too far north for best results from cow-peas. But the latter have done well on warm soils further north, and I should try them. The Canada pea does not grow in favor so far south, though it has given good yields in some instances. If you try this Northern pea, sow very early with oats. Use a common grain-drill for the peas, setting the hoes to run very deep. A log-chain will help to weight them down. Put the peas in three to four inches deep and then drill in the oats. The amount of hay depends upon soil and season, but frankly I have not faith that it will be satisfactorily large in your latitude. Try it ou a small scale, getting seed of any seedsman. Try the cow-pea on an acre or two. It can probably be made worth more to you than the Northern pea. Neither kind of peas will become a nnisance as a weed.

Pasture for Horses.—When horses are at hard work their food should not be very laxative, and for this reason many horsemeu object to summer pasturage; but on most farms there should be, I believe, a good pasture for work-teams. This would be in the interest of economy, health and comfort. There are many days throughout the season when some or all of the horses are necessarily idle, and grass at such times saves other feed. The American farmer feeds a great deal of corn because he has this grain. It is heating, and hard on the organs of digestion when fed at all heavily. Grass is the natural corrective. As to comfort, there is no better place for tired animals on a hot night than on a grass sod. Their rest in perfect freedom is sweet to them. Twenty years of experience with horses on a good pasture at night during the summer teaches me that the grass is all right in ordinary farming. It would not be the thing if the horses were at the hardest labor every day, but it saves grain and hay during wet weather, and it makes the keeping of an extra horse for the busiest times practicable. I can have the extra help when work crowds and yet maintain the force of horses for less money than formerly, when stabling was the rule the year round. Health is much better and the dumb animals have a happier time. But the grass must be good, so that the animals have no desire to keep grazing till a late hour at night, and grain and hay should be fed after a day's hard work before they are permitted to go to the pasture. Let the horses have their freedom when the nights become hot and on all idle days.

The Farmers' Living.—It is charged that farmers as a class do not live well. The claim is that salt meat, fried grease in various forms, one or two vegetables and bread form the bill of fare for many of us. The last one to reiterate this charge to me was a lady whose work takes her into hundreds of farm homes. My reply was that she had simply failed to get into the homes of the good farmers, and was as unfair in her charge as I would be if I judged all city folk by the people in some tenement districts of our cities. While I am correct about this, yet it is only too true that comparatively few of us supply our tables with as much fresh fruit and vegetables as we should. The farmer not only deserves the best the land can produce, but he can have it, and health demands less grease in the summer and a greater abundance of fruits and vegetables. Now is the time to provide for cheap and appetizing food in hot weather. I know just how busy one feels when field-work begins; but the thing to do is to get away from the little square, fenced garden for a base of supplies. Manure a long, narrow strip of ground, and make it rich. Put a permanent fence on the sides if chickens must have their liberty, and have a movable wire fence on the ends. Swing the fence out of the way at the ends and cultivate just as one does in the field. Use plow, harrow and weeder, abandon trifling beds and fussing with hand-rakes, and in the rich soil plant liberally of everything that is liked on the table. Have the fruit in rows on one side. Let cultivators do about all the work. Then it can be done quickly, and with liberal planting there will be an abundance without much nursing with hoe and rake. Rich ground, long rows, liberal planting of all vegetables and fruits that are liked—this means cheap, healthful food for us.

David.

"CAN WE GET A LIVING?"

Journeying from the far sunny coasts of the Pacific slope this letter comes to me:

"I am always interested in anything about farming, for I like farm-life and think it is so nice to live in the country. We have a nice little place of five acres one hour's drive from town. Now, my Joe John thinks he would like to live in town and keep a store or go into some kind of business. I tell him we can make a nice living on the little farm if we only put our shoulders to the wheel and keep pushing. We have some three hundred and fifty orange and lemon trees in bearing, a horse and wagon and a good cow, besides some chickens. Please write and tell us what you think about making a living here. Respectfully,

"Mrs. Joe John."

Now, in the first place, this may be pretty serious business for me. If Joe John is inclined in one direction and Mrs. Joe John in another, think what the consequences might be were I, in my ignorance of many things concerning farming on the Western slope, to give advice! I am far enough away myself so that my bodily safety may be insured, bnt how about the most worthy Joe John and his good wife? Who will insure their future peace of minds?

Seriously, Mrs. Joe John, there are many reasons why I do not like to give anything more than a tentative reply to your questions. About orange and lemon growing I know absolutely nothing. Here is what I believe:

If you have been on the farm any length of time you know how you stand from year's end to year's end. What do the books show? Profit or loss? If you have lately come to the farm, and have not yet satisfied yourselves that there is a living in farming, try the work thoroughly before you decide to give it up. It seems to me there should be a comfortable living in five acres of fruit of the kind named. Judging from the price we on the Atlantic coast must pay for oranges and lemons somebody is making money at it. The wife, too, might increase her flock of chickens. Many are making a living from fowls alone. And altogether, by keeping their "shoulders to the wheel" there is the best reason in the world for believing that this worthy couple will do well.

So far speculatively. When it comes to moving away to town I know something about that. I was born and "brought up" on a farm. After marrying we lived in city and town for some ten years, having what most men would call a good position there. We lived in rented houses and most of the time bought everything we had to eat, drink and wear. We saved some money. The Mrs. "Joe John" in this case had been a school-ma'am, but she was a good one and had had a good mother, who had taught her to do all kinds of housework, and do it well. We were careful about our expenditures, and left the town better off financially than when we entered it. So far well.

But I do believe there are other things to be thought of than dollars and cents. I am persuaded that money cannot make up for a host of things the dweller in the city misses. Here are some of them in our case. At the end of the ten years I found myself broken down physically. I could not eat anything with any degree of comfort. Now, if any one knows what this means, he knows that a great deal of the comfort of living must be gone when such a state of affairs as this exists. Then, too, we very seldom had anything fresh in the line of fruit or vegetables. This is a thing of no small importance.

All through our city experience our hearts had turned back to the hills of the country. How we did long for the fresh air, the pure food and the liberty of the country! And as soon as possible we started. Dropping the good salary and all that came with it, we hied us away to rural scenes. We bought the farm. For ten years we have reveled in it. We have known greater peace of mind than ever we did in the city. The story of the change would be too long. It must be enough to say that we have found that if one wants to find health, freedom from the harassing things connected with the cramped-np city, pnre air and water, and a chance to live in the best and truest sense, let him stay in the country, or go there if he be so unfortunate as to be a city man now.

There is a sight of comfort in thinking that one is his own man. No one can say to him, "This house must be vacated next week. You must find some other place." Or, "We have decided that your work is not done as we want it. Do differently if you want to stay." Or, "You will not live six months if you do not stop this kind of work."

All this has been written with a great hope in my heart that it may prove helpful to the lady who writes me, also her husband. I have all the time wondered what I wonld do were I in their place. And the best I can do, after all, is to tell what I did do. I think now, if I had it to do over again, I would not stay half as long in town as I did. I would in all probability have lived longer if I had not. And, really, one life is all we have. If one gets where he can do the best toward bringing out the good in him, and helping somewhat toward making the little world around him better, what more should he ask or expect?

Edgar L. Vincent.

SOIL MOISTURE NEEDED FOR CLOVER

Because of the need of moisture we must put the ground in tilth to retain moisture. Farmers have so long trusted to getting the seed covered by the frost or rains that they have not given it as good a chance as they have their oats, wheat and barley. This trusting to nature to cover the seed has led to the custom of sowing only in the freezing and thawing season. Talking with a friend about my tests of crimson clover and the prime requisite of success, he said that the same is true of our old friend red clover. He asked why we cannot sow medium red clover after we lay by corn, and have clover to turn under the next spring. I told him that we can if we secure the moisture and then cover the clover-seed. He has since tried it, and claims that clover thus tried is as sure a crop as wheat or barley. Just how deep clover will bear covering I do not know, but to get a stand in June or July it is as necessary to cover medium red clover as crimson, and for the same reason. So valuable is clover for feed and improvement of soil that we can afford to give the seed a better chance than is customary. Why our medium red clover does not grow as well in New Jersey, Delaware and other states where crimson clover does well is, I suspect, partly due to shortage of moisture in the surface soil. We find it harder to get a good stand on soil that is so sandy that the surface dries quickly. On such soil harrowing with a smoothing-harrow, and then rolling after seed is sown, secures a stand where failure is almost certain without it. I think farmers too often expect too much of clover. They want it to grow and make rich land where wheat, barley, oats and even beans will not grow. Such soil is as truly wheat-sick and oat-sick as "clover-sick." If on such a soil wheat is secured, it follows fertilizing and thorough cultivation. To secure a stand of clover we can afford to give as much care to preparation for it as we give for wheat.—L. N. Bonham, in Rural New-Yorker.

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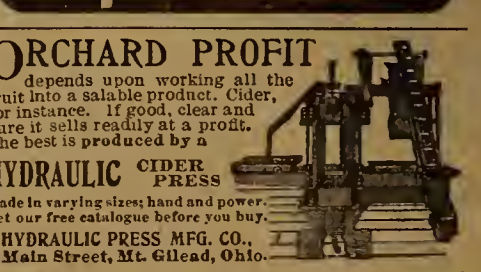
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NOTES FROM GARDEN AND FIELD

CONDUCTED BY T. GREINER

THE OUTLOOK.—One of our friends who resides in Yates County, New York, takes a rather pessimistic view of the situation, and says that the outlook for the fruit and vegetable grower is most discouraging. "The dawn of a truly prosperous morn will never come to the trucker and farmer," he says, "while over a billion dollars is required to pay the annual drink bill. This figure, representing the people's annual sacrifice to the prosperity of the liquor business, alone is enough to blight all hope and discourage almost any one engaged in any legitimate occupation." While it is true that the drink habit is one of the great curses that rest on the American people, and that many other circumstances combine in reducing the consumptive capacity of our people for vegetable and fruit products, it is none the less a fact that at least the fruit-grower had a profitable season the past year, and he looks hopefully into the future. I may except the grape-grower to some extent, as grapes have been abundant and cheap. I am not prepared to say much about the outlook for the vegetable-grower. Personally I was not quite satisfied with the outcome last year. Wholesale prices have been extremely low, and left us little or no profit—in many cases loss. So long as we have to deal with a good class of retail customers we can still make gardening pay well enough. It seems that these things will adjust themselves after a while. The low prices have at least one good effect; namely, to get people accustomed to enlarged consumption of vegetable and fruit products. And once in the habit of using them freely people will not again do without them even at higher prices. For the coming season I shall not grow a thing to be put into the wholesale market. Grocers need not apply. I shall try to grow all that I can sell directly to the consumer at fair prices, but nothing more. Among fruits, early apples and summer pears were about the only things that could not be sold here at anything like an acceptable price. We did very well with later pears and later apples, also plums, etc., and the home call was even good for our grapes. Strawberries have not brought higher prices for many years than last season. On the whole we have nothing to complain of on this line, and we expect even better things from the coming season.

TANKAGE AS MANURE.—A reader in Boston, Pa., asks about tankage and how to make it available for fertilizing purposes. Many of our readers may not have a clear idea of what tankage really is. As the name indicates, tankage is a substance or material that is prepared in a tank. All sorts of slaughter-house refuse, scraps of meat, bone, etc., which have no other value are thrown into vats or tanks. The fat is extracted and the residue dried and ground. It should go into the market as a fine, dry powder, with little odor, and carry from five to eight per cent of nitrogen and from six to eighteen per cent of phosphoric acid. In the very nature of things tankage must be very variable. If the refuse consists largely of blood and meat the resulting tankage contains more nitrogen. If it consists mostly of bone it will have a large percentage of phosphoric acid (as bone phosphate) and less nitrogen. Without subjecting tankage to the sulphuric-acid treatment we cannot expect to have the plant-foods as readily available as they are in our best chemical manures. Potash is entirely lacking in tankage. With these explanations it seems almost superfluous to give further directions regarding use and application to any soil-tiller who has some knowledge of the principles involved in the preparation and mixing of plant-foods. Where nitrogen and phosphoric acid alone are wanted—as, for instance, for grain lands where the soil is well supplied with potash already—dry tankage may be applied broadcast or by drill at the rate of two hundred to six hundred pounds an acre. If moist, it may be dried by additions of dried muck or dry soil. But if potash is also needed, as is most likely in the majority of cases, muriate of potash may be mixed with the tankage in the required proportion. Or wood ashes may be used in conjunction with the tankage. To add some readily soluble phosphoric acid, and to make a still better balanced fertilizer, the addition of acid phosphate (dissolved South Carolina rock) will give good results.

EARLY WINNINGSTADT CABBAGE.—A Minnesota reader wants me to tell what time seed of the Early Winningstadt cabbage should be sown to raise cabbages for winter use. The Winningstadt is an early variety, coming a few weeks after Jersey Wakefield and other sorts of the same season. It is pointed like the Wakefield, and one of the most reliable sorts to make good heads in our whole list of cabbage varieties. One of my favorite ways of growing this cabbage for midseason's sales, to come on when the Wakefields are all gone, is to sow the seed directly in the hills in early spring. Of course, the heads must be disposed of in good season, else they will crack or send up seed-stalks and become worthless. For winter cabbages we may start seeds of the Winningstadt in the same way during the early part of July. It is not easy to pick out just the right time for this, as the development and general outcome depend greatly on the season's whims. Sometimes winter comes early, and we must have the plants headed and out of the way in October. Then, again, the fall may be late and favorable, giving the cabbages time to grow and head until December. In the climate of western New York, however, we will be most likely to succeed when we sow seed of the Winningstadt during July.

DILL PICKLES.—The same correspondent asks for my receipt for making dill pickles. To make these very palatable and wholesome pickles you want nice, large, straight cucumbers. Long Green and White Spine are good varieties to select for this purpose. Gather them when they have reached good size, but before the seeds begin to swell. Soak them over night in cold water, wash them thoroughly the next day, giving them a scrubbing with a coarse brush, and pack them into a keg with alternate layers of fresh grape-leaves and a few stalks of dill. Then pour a brine over them, made by dissolving one cupful of salt in one bucketful of water. Hold the pickles under the brine by weighting with a loose cover and a stone. In warm weather the pickles will be good to use in two weeks' time. No vinegar is needed, as the pickles develop acidity enough to be palatable. Simply peel and cut them in slices lengthwise, and eat with potatoes, meat or even bread and butter. The dill is not absolutely necessary, but imparts some characteristic flavor to the pickles. Every seedsman offers dill-seed. A five-cent packet is all you will want. Sow it as you would cresses. It is easily grown, and when plants are left to ripen and shed seed you are liable to see plenty of seedlings start up the next year. It is not apt to become a weed pest.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

CLEFT-GRAFTING

The terms used in grafting are scion, which is the part inserted, and stock, which is the tree grafted upon. Cleft-grafting is probably more generally used than any other kind. It is commonly performed to change the bearing of apple, plum and various other trees and plants. It may be used on very small branches or stocks, but is best adapted to large branches. The tools used on larger-sized stocks are a sharp knife for cutting the scions, a sharp saw for cutting off the branches or stems, and a grafting-chisel for splitting the stocks and for holding the cleft open while the scions are being inserted. On small stocks a sharp knife alone is needed.

FIG. 1

The work is done as follows: The place selected for the insertion of the scions should be where the grain is straight. The stock is then cut square off and is split through its center to a sufficient depth to allow the scion to be put in place. The cleft should be held open by the wedge-shaped part of the chisel (a large nail will answer the purpose in a small way) until the scions are inserted, when the wedge is withdrawn, allowing the stock to spring back and hold the scions in place. If the stock does not spring back into place it should be drawn tight against the scions by a piece of string. The number of scions put into each stock will depend upon its size, but generally not more than two are inserted, and on small stocks only one. It is absolutely necessary for success that the inner barks of both scion and stock come together, as shown in Fig. 1. When inserted the scions should appear as shown in Fig. 2. The scions should be wedge-shaped for about one and one half inches where they go into the cleft in the stock. They should also be wedge-shaped crossways, as shown in Fig. 1, so as to bind the inner barks of scion and stock together. They should each have two or three buds above the cleft. The scions must be of wood of the preceding year's growth, and no older. It is important to use a sharp knife for making the cuts. When the scions are inserted and in place all the cut surfaces should be covered with grafting-wax. Clay and cow-dung well kneaded together in equal proportions into a stiff mastic may be used in place of wax, but all things considered wax is most desirable.

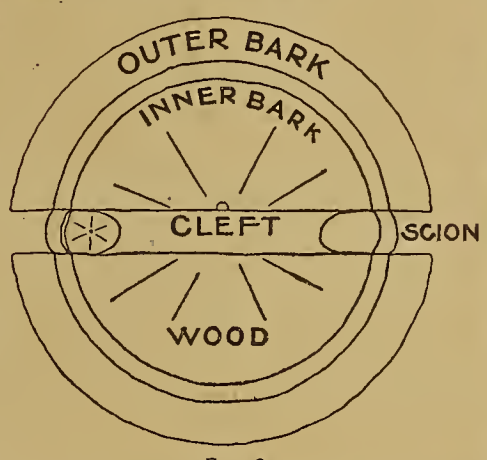


FIG. 2

A good grafting-wax for general use may be made as follows: Resin, four parts by weight; beeswax, two parts; tallow, one part. Melt together and pour into a pail of cold water; then grease the hands and pull the wax until it is nearly white, in the same way that molasses-candy is pulled. In applying the wax, place it in warm water to soften for use if too hard. Grease the hands, to prevent it sticking to them. Grafting is generally performed with greatest certainty just as growth starts in the spring. The buds on the scion should not have started at the time they are inserted. Plums generally graft best just before the growth starts.

INQUIRIES ANSWERED

Plums for Kansas.—E. J. P., Great Bend, Kan. I would suggest that you plant Wild Goose, Wyant and De Soto plums, as these native sorts are especially valuable in Kansas. If you wish to try something of the European sorts, plant Lombard and Bradshaw.

Time to Prune.—S. J. O., Hartland, Wis. The best time to prune apple, cherry and plum trees is probably in June, as the wounds heal over very quickly at that time. However, when I have a large amount of heavy pruning to do I often do it on mild days in March, before growth starts, but I am very particular in this case to cover all wounds upon all wood three years old or older with a good coating of grafting-wax.

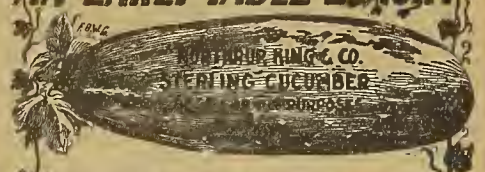
Best Mulberry—Best Raspberry.—J. W. J., Whitman, Mass. Probably the best mulberry for cultivation in Massachusetts and states having a similar climate is the variety known as the New American.——I think the best raspberry for general use is probably the Loudon. It is a strong grower and fruitful, the fruit being a bright red color and of good size. The only objection I have ever heard made to it has been that the fruit did not separate easily from the plant until it was about fully ripe; but on my own grounds I have had no serious trouble of this kind.

Kerosene Emulsion.—F. A. B., Nebraska. Make kerosene emulsion by stirring together one gallon of warm sour milk and two gallons of warm kerosene. Dilute with twelve times its bulk for use. A good emulsion can also be made from two gallons of kerosene-oil, one half pound of common soap and one gallon of water. Heat the water and dissolve the soap in it, and add the solution while boiling hot to the kerosene. Churn the materials together until they form a perfect cream. For use dilute with ten to twelve times its bulk of water. These emulsions are used for lice and other sucking insects. The introduction of force-pumps that mix kerosene and water promises to make such a mixture more popular than emulsions.

Osage Orange in Utah.—C. S. C., Hoytsville, Utah, writes: "Can the Osage orange be successfully cultivated in this altitude of about five thousand feet? Wheat, oats and potatoes do fairly well here. Please state the best time to plant seed and the mode of treatment; also the best place to procure seed or cuttings and price of the same."

REPLY:—The Osage orange, I fear, will hardly be satisfactory at an elevation of five thousand feet, but the plants cost so very little that I think you might experiment with it on a small scale. You had better start with one-year-old seedlings. These can be obtained from any of the larger Western nurserymen. Try some of the nurserymen advertising in the FARM AND FIRESIDE by asking them by postal-cards as to prices.

AN EARLY TABLE LUXURY



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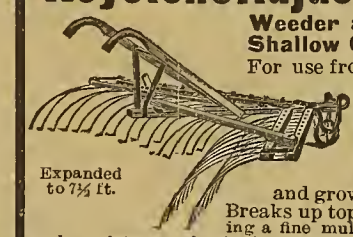

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FARMERS' INSTITUTE QUESTION-BOX

THE following, selected from the question-box when attending farmers' institutes, should be of value to farmers, because the questions were answered by experts in different lines of farming:

Can we succeed with alfalfa in New York? Mr. H. E. Cook, conductor of the institute, answered: Alfalfa is now quite generally grown in New York. It requires a deep, well-drained soil and plenty of food; therefore, sow it on rich soil. Pulverize the soil finely and sow thirty pounds to the acre. Mow it when it has made some growth, to kill the weeds. At the New Jersey Experiment Station the alfalfa grown on one acre contained protein that purchased in wheat-bran would have cost more than $100. Prof. Hall, of the New York Experiment Station, said that alfalfa had been grown at the station for several years, and that it had yielded very satisfactory crops, in some years more than five tons of dried hay to the acre. It is not a pasture crop, but should be mowed. You can determine its value on your farm only by trial.

How can we grow clover? Mr. Cook advised the application of lime to soils that will not produce clover. Experiment with an acre, applying thirty bushels to it, and note the results. The air-slaked lime is not so effective to sweeten acid soils as the stone-lime that is slaked by the action of the water in the soil. Ashes contain lime, and if cheaply obtained can be profitably used in place of the lime.

Shall we cross-breed cattle? Mr. Traver: I would not cross-breed fixed types, only breed pure breeds on natives.

Shall we put the ears of corn in the silo? Mr. Cook: I have experimented in taking off the ears of corn, and found the silage not so valuable. I had to replace all the grain taken from the corn.

How shall I feed hens in winter to make them lay the most eggs? Mr. A. Stevens: Feed a mash in the morning composed of fifty pounds of oats ground, fifty pounds of bran, fifty pounds of corn-meal, twelve pounds of meat-meal, twelve pounds of vegetables, with cut clover steamed and added to the mash. Feed one pound to every ten hens. Also feed different kinds of small grain in litter at noon and night.

Will prunes do well grafted on plum stocks? Mr. S. D. Willard: Yes, and it is often desirable to do it.

What is the best way to heal a wound on an apple-tree caused by breaking? Mr. Willard: If not too large cover the wound with grafting-wax after sawing or cutting it off smoothly. If it is a large branch, use paint.

When is the best time to plow an orchard? Mr. Willard: I prefer to plow in the fall, especially the heavy soils. I plow very shallow with the gang-plow.

Is crimson clover the best crop to sow in the orchard to make a green crop to plow under? Mr. Willard: It has not generally lived through the winter in this state. I consider rye a safer crop to grow in the orchard.

Is the Bradshaw plum profitable to grow for market? Mr. Willard: It is a good plum for the early market.

Is it better to keep hogs in an apple orchard than to plow it? Mr. Willard: Sometimes it pays to keep hogs in the orchard.

Will peaches grow well on plum stocks? Mr. Willard: There is a lack of affinity.

Does spraying the orchard help the trees to hold the foliage and tend to prevent the apples from falling from the trees early in the fall? Mr. Willard: It certainly does. The tree can better mature its fruit if the leaves are kept healthy, for through them must come the carbon, which is one element of plant-food.

In pear orchards, would you mix Seckels with Bartletts to secure better pollenization? Mr. Willard: I would prefer to mix Clapps with Bartletts. In an experiment on my place in covering pear-trees in a way that kept the bees from them they bore no fruit. This proved the necessity of pollenization.

What is the best way of combating the tent-caterpillar in the orchard? Prof. Parrot, of New York Experiment Station: Spray with arsenical poisons on its first appearance.

What is the cause and remedy of weevils in beans? Prof. Parrot: It is a beetle which lives in the bean. The best way to treat beans in large quantities is to use carbon bisulphide in the bins, one pound to one hundred cubic feet. Great care should be taken that no flame comes in contact with it and that the building is well ventilated after using it.

Would you use plaster in the stables? Mr. C. E. Chapman: It will prevent the loss of ammonia, but it is too expensive to use as an absorbent. It is not a plant-food, but it is of use in that it makes the plant-food in the soil more available.

Why do my pigs have weak legs? Dr. Smead: Probably lack of food containing protein, or bone-making material. Too much corn may be the cause. Wheat middlings and ground or chopped oats and skim-milk are good food for growing pigs. Most pigs are not kept in warm houses in the winter, and they frequently get chilled, which is cause of disease. After lying close together in bedding they become very warm, then when they get out they are exposed to zero weather, and the result is a chill and lameness.

W. H. JENKINS.

HARROWING ON HORSEBACK

One of the hardest, most disagreeable jobs about the farm is following a harrow. The farm team usually attached to the implement are big, strong animals that step off lively. The length of the lines necessary to reach back over the harrow is hardly ever quite enough to give the man room enough to take a long step. The ground, of course, is soft, and the man sinks into the soil at every step. His height is just right to catch the full effect of the dust that is whirled up into the air full in his face. He cannot see the clods and stumbles over them; he recovers himself and is nearly jerked off his feet by the lines. Little wonder that the harrow is often left behind when it might be used with benefit in the fields. Why will not the farmer ride when he has harrowing to do? For the same reason that he will not rig a sun-shade over his cultivator and plow or mowing-machine. It is not the custom to do so.

A few years ago the hired man of a neighbor, having a twenty-acre field of oats to harrow in, saddled up his riding-pony and took it to the field with him. He spliced on an extra length of lines, hitched his team to the harrow, jumped upon his pony and started across the field. He was above the dust and could see where his team was going, and being on a level with them could manage it better. He was not called upon to exert a continued effort to keep the team's pace equal to his own. His pony could travel as fast as the team cared to go, therefore he was able to accomplish much more work in a day by riding instead of walking. When he came in at evening from the field he was not dust-covered, tired out and out of sorts. He was good-tempered and disposed to spend extra time grooming and caring for his team. He even helped with the other chores, which was not a part of his regular duties.

There was no reason why the young man had not done a wise thing. He was not tired out with a day's walking on soft ground, his health was not endangered by breathing the flying dust, and he had almost doubled the amount of ground covered in the day's work. But the neighboring farmers, who from their own fields wiped the dust and sweat from their eyes and saw him crossing his field, called him lazy. There were those among them who declared that they would not have the fellow on their farm. But his employer was not one of them.

"Bob taught me something last spring," he said one day. "Next time you see me walking in the dirt behind a harrow I'll be horseback."

J. L. IRWIN.

CORRESPONDENCE

FROM WASHINGTON.—In Whatcom County we have a very mild climate. We have no snow at all some winters. The mercury sometimes gets as low as zero for a day or so, but a week later it may be warm again. The principal industries are farming, fruit-growing and lumbering. There are many shingle-mills, which employ many men at good wages—from $1.50 to $2.50 a day. Farm produce is always a good price, and the land produces very large crops. Oats often yield from 125 to 150 bushels to the acre (on the bottom-lands); wheat from 50 to 60, and peas from 40 to 60. On account of our cool summers, which we enjoy so much, this is not a corn country. All kinds of root crops are very large. Potatoes yield 800 bushels and hay 5 tons to the acre—of course, I mean on the bottom-lands, where the best farms are. The apple crop is immense here. Pears, plums, prunes and cherries are of the finest quality. I have never seen a cherry-worm since I came to the country. Our small fruits cannot be beaten. Dairying here is quite an industry. Cows bring an annual profit of from $50 to $75 apiece. The fishing industry is very extensive, the largest salmon-cannery in the world being at Whatcom. The salmon-canneries employ a great many men and women, who during the rush time make from $2.50 to $5 a day. Prices of land range from $3 an acre for wild land to $100 for the best improved.

Ferndale, Wash. A. S.

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GEESE AND DUCKS

Geese and ducks seem to be necessary on all farms to complete the list of live stock. Geese should be kept separate from other poultry; a grass-plot with water is what they prefer. There should be one gander to three or four geese, or one to two geese is better. Geese in mild seasons lay early. In February they are often known to lay, but usually later. It is well, therefore, to prepare their nests—some old store-box or barrel with one end out and plenty of fine straw in it will make a good nest. Look for the eggs early in the morning, as they may freeze or dogs may get them. Geese should be well supplied with food and water while sitting. The goslings should be taken out of the nests and dried in flannel rags near the stove unless they do well and all come out of their shells at once, or nearly so. Unless this be done there is danger of some being crushed to death under the goose. They may be let out on the grass the next day after they are hatched if the weather is fine. Corn-meal, bran, cabbage or grass cut fine and mixed with water make good food for goslings; it should be given two or three times a day. The Embden geese are large, quiet and possess superior quality of flesh and down, and are noted for beauty where they have access to a pond to keep them clean. The Toulouse and African varieties are also favorites. Ducks cannot be kept in all situations with advantage, but on most farms they pay well. They are hardy, and will eat almost anything and everything that is given them. They are not fastidious; they love a green plot and running brook, tadpoles, insects, etc. They should have a place of their own to lodge in at night, kept clean by spreading new straw over the floor once every two days. They should not be let out too early in the morning or until the eggs are secured. It is not good for ducklings to go into cold water until fully fledged or feathered. Feed on corn-meal and cold potatoes mashed and mixed with a little animal-meal. Keep the ducklings safe from rats and other vermin until they are four or six weeks old. The Pekin is the variety usually kept, as they do well without ponds.—Rural Home.

HENS AS BROODERS

If an incubator is used, and hens are preferred to brooders as mothers, some provision must be made in advance, as but few hens may be broody. Before filling the incubator with eggs get as many broody hens as possible, and then give the hens their eggs, filling the incubator at the same time. The whole number of chicks can be divided between the hens. If the hens are given large, tight-board coops each can take care of a large number of chicks. Have board bottoms to the coops, so that they can easily be moved from one place to another; and they should be moved every day or two, giving them a fresh spot, and do not compel them to stay on the same location three or four weeks at a time, as some breeders do, as they are then sure to get sickly, and a good share of them will die before they are large enough to take care of themselves. If this plan is followed the incubator will be found a great help in securing a nice lot of chicks, for some of the large, motherly Brahma hens will raise from twenty to twenty-five chicks if properly managed and the weather is warm, when, without the use of the incubator, they would raise only their own hatch of perhaps twelve or fourteen chicks. The hens must be kept in a warm house, however, if the hatching is done in winter. The difficulty will be to get the hens, hence one should also have brooders as a reserve.

EGG MATERIALS

Mineral matter is essential for thrift, hence fowls need lime with their food. Grain alone will not furnish lime enough for a full supply of eggs. In a state of nature a hen would lay a single litter of eggs, hatch them, care for the chicks, and then cease for the season. The ordinary food, consisting of a variety, supplies this demand. But when a hen lays one hundred and twenty eggs she will require as much lime in a month as she would naturally get in a year. This excess must be supplied. Crushed bone and oyster-shells are excellent, and should always be kept within reach of the hens. It is not advisable to give egg-shells unless they are broken very fine, otherwise the hens may learn to break and eat eggs. When corn is given exclusively the fowls will not thrive, as grain is deficient in lime. Fowls cannot produce a particular article from materials not adapted to the purpose intended. A hen cannot produce eggs if lime is lacking, nor can she supply the growth of her body when her product takes possession of that which should support herself. Nature gives her a desire for that which she requires, and this is demonstrated by the eagerness with which fowls accept different foods from that on which they may have been fed for awhile. The lime in the food is in the best form for them. Feeding is the art of supplying the proper food, not so much in quantity as in quality. Observation of the fowls will teach better methods of feeding.

THE LARGE LICE

When the chicks appear drowsy or refuse to eat it will be in order to examine for the large gray lice which come from the heads of the hens to the chicks. Experienced incubator operators will not allow a hen within many feet of the brooders. The remedy is to anoint the heads and necks with a few drops of melted lard, dust well with insect-powder and clean their quarters. Feed millet-seed, cooked bread (which should contain some finely chopped lean beef), cooked potatoes, and clover that has been chopped very fine. Milk in the bread instead of water is also excellent, and sharp, fine grit should also be allowed. Nutritious food gives strength to resist lice attacks. Three times a week (during dry weather) a teaspoonful of sulphur may be added to the materials composing the bread. The large lice are found on the skin of the heads and necks and on the bodies, and close examination is sometimes required to find them, which is not the case with the small mites, as they will be noticed on the hands and clothing. The advertised "lice-killers" are the cheapest and best remedies.

HOW MANY HENS?

Frequent inquiries are made as to how many fowls should be kept together, and how many be allowed in a poultry-house of some particular dimensions. Regarding the number of fowls in a poultry-house a safe rule is to allow ten square feet to each hen, though it is given simply as a suggestion and not as a strict rule to follow. This gives ten hens a house ten by ten feet, or one hundred square feet. In the winter season as many as twenty hens may occupy such a house, but where the flock is not too large the hens will thrive better. Each hen should have one foot of space on the roost. The main space should be on the floor, as there the hens will need room for scratching and working. There is usually a temptation to crowd the hens, and the majority of persons put twice as many hens in a building as they should, the result being filth, inactivity and disease. Plenty of room for the hens induces exercise, prevents them from becoming too fat, and as exercise in winter is essential the more room on the floor the better. About one hundred hens on an acre of ground should be the number allowed.

GAPES IN CHICKS

Gapes frequently attack chicks unexpectedly. To prevent gapes keep the chicks perfectly dry (on the barn floor is the best place) the first four weeks. If the ground is cold or damp do not let them out until it is dry, as dampness is one of the causes of gapes. Should gapes appear give crumbs of bread with a few drops of turpentine on them, or to a pint of corn-meal add one teaspoonful of turpentine, mix thoroughly, then scald, and feed once a day. See that every chick eats, and if any refuse put a pill of it down each. The turpentine is not always a sure cure, but it is better than attempting to use a feather in the windpipe, as is done by inexperienced persons.

PICKING THE CARCASSES

It is a waste of time to dry-pick fowls for home use. The quickest and cleanest way is to scald them. When fowls are killed for use in the family this method is as good as picking them dry. In the market, however, a great deal depends upon the looks of poultry in order to make quick sales at good prices. Scalding, it must be admitted, spoils the appearance of poultry intended for market, so that it becomes necessary to pluck dry if best prices are to be obtained. That may be a mere matter of preference on the part of buyers, but preferences are not to be disputed, and hence must be complied with.

CORRESPONDENCE

Black Langshans.—I wish to give my experience for twelve months with the Black Langshan hens. In that time they have laid 1,436 eggs. During the month of April six of them hatched a brood of chickens each; they had very poor hatches, so I gave all the chicks to three hens. They cost for feed $9.78; for all roosters, $3.60. I have sold four sittings of eggs at $1 each; one cockerel and eight pullets for breeding, $8. I killed four for the table, at 40 cents each. The 108 dozen eggs at an average market price of 16 cents a dozen leaves a net profit of $17.15. I have kept Black Langshans about six years, and consider them one of the best all-purpose fowls there are for close confinement. I think it pays any one who has a small place in town to keep a few well-bred hens.

Boulder, Col. M. H. C.

Movable Poultry-house.—The January 1st Farm and Fireside contained a request from "J. C. M." for a poultry-house plan. As I have had experience with poultry-houses on rented farms I understand his need. If renting is before him for some time he should build a house on an old wagon, and the whole subject is easily settled. If that does not suit, try this: Make the end of a house with double uprights at the sides, far enough apart to admit the sides, and when setting up bolt together. Make the ends of the roof and lower side with the proper slant to drop upon the ends and sides to bolt together the same way. Fasten an inverted trough on the ridge. Any man handy with tools can construct such a house tight enough to exclude drafts; tar or building-paper outside before placing the battens will aid materially.

Hopkins Park, Ill. H.

A Prolific Hen.—Let me give you an egg item or the history of a hen for publication if you think it worthy. A gentleman at Troy, Pa., has a hen which laid during the last summer and fall, in one hundred and ten consecutive days, one hundred eggs without the shadow of a doubt, as there was no other hen that had the liberty of the premises. She is a mixed Plymouth Rock hen, hatched late in the fall three years ago, and with two others became orphans, which were taken into the kitchen, and this one especially became a great pet. The following summer she laid one litter of eggs, hatched a brood of chicks, and seemingly becoming disgusted with the chicken business has since devoted her whole attention to the production of eggs. The second year she was confined with others, consequently without record. Last summer she claimed the privilege of running at large; with the above results. How many she may have laid before being let out of course could not be known, but quite likely a large number, as she was confined with others until July. She has never wanted to sit since the first year.

Vineland, N. J. J. B. S.

INQUIRIES ANSWERED

Marking Chicks.—J. L., Americus, Kansas, writes: "Which is best device for marking chicks?"

Reply:—There are several kinds, which can be had of poultry-supply concerns.

White Minorcas.—R. E. J., Newton, Kansas, writes: "Are White Minorcas good layers and suitable for the farm?"

Reply:—They are non-sitters, good layers and have large combs, ranking high for egg production, but not equal to some breeds for market.

Scabby Legs.—W. T. M., Pasadena, Cal., writes: "Give a remedy for scale or scabby legs."

Reply:—Wash the shanks in soap-suds, rubbing well. Wipe dry, and anoint with sulphur and lard or crude petroleum and lard twice a week, A few applications will remove the scale.

Crossing Langshans.—J. J. B., Wilson. Kansas, writes: "I have Black Langshans; would it be of advantage to cross them with Leghorns or Plymouth Rocks?"

Reply:—The better plan would be to get a Langshan male from elsewhere. Crossing destroys the characteristics of both breeds used.

Eggs for Hatching.—"Subscriber," Edwardsville, Ill., writes: "1. At what temperature should eggs for hatching be kept? 2. How is it best to pack eggs for shipping for incubators?"

Reply:—1. Not lower than forty degrees or over sixty-five degrees, the lower temperature preferred. 2. Ordinary egg-crates should answer.

Young Turkeys.—N. C., Omaha, Neb., writes: "My turkeys lived six weeks only. They had good range; no lice. They were fed two or three times a day on hard-boiled eggs, wheat and bread and milk."

Reply:—You do not state when hatched. The cause may have been exposure. It is difficult to assign a cause unless more details are given.

Hatching and Feeding.—J. M., New London, Conn., writes: "1. Give a ration to make pullets lay early. 2. Will Minorca chicks hatched from March to May lay this year? 3. How much green bone should be allowed growing pullets? 4. Can fresh eggs be fixed to prevent hatching?"

Reply:—1. Meat and green bone will promote laying. 2. Yes. 3. About one ounce a pullet, daily. 4. Pierce with a fine needle or touch tip of egg in boiling water about ten seconds.

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VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

An Actinomycom.—N. W., Saginaw, Mich. Please consult answer to A. P., Ferry, Mich., in FARM AND FIRESIDE of January 15th.

Condition Powders—Worms.—C. H., Fond du Lac, Wis. These same questions you ask have of late been repeatedly answered in these columns.

Lice on Horses.—J. M., Morgan, Mich. Please consult answer to J. H. G., Roy, Wis., in issue of February 15th of FARM AND FIRESIDE.

Perhaps Ringworm.—W. R. G., Pidcoke, Texas. What you inquire about appears to me, from your description, like a case of so-called ringworm. Please consult answer to M. J. R., Toboso, Ohio, in FARM AND FIRESIDE of February 1st.

Request Cannot be Complied With.—J. A. McC., Ashley, Ohio. Your request cannot be complied with for various reasons. You may obtain what you want if you advertise in a veterinary journal; for instance, in the journal of Dr. W. Horace Hoskins, 3452 Ludlow Street, Philadelphia, Pa.

A Ten-year-old Mare.—C. S., Glenburn, Pa. If your ten-year-old mare is a healthy, well-made and harmoniously developed animal, and has a sufficiently broad pelvis, I do not apprehend any special danger if you breed her, provided you do not breed her to a rough-boned horse or to any horse that is larger, taller or heavier than she is herself.

Potatoes for Horses.—P. E. C., Crooksville, Ohio. I would consider potatoes a very poor food for horses, except, perhaps, in very small quantities as a substitute for green food in cases of sickness. I do not know that anybody has ever seriously entertained the idea of using potatoes as a food for horses, except in small quantities and as a substitute—and a poor one at that—for green food.

Diseased Belgian Hares.—E. G., Soledad, Cal. Most diseases of these, like those of all other rabbits kept in captivity, are due to dietetic mistakes. Still there is hardly any other animal that is so prone to take nearly all infectious diseases as a rabbit, and I suppose the Belgian hares are very much the same way. It is therefore impossible to make a definite diagnosis from just one symptom.

Scabs All Over.—A. H. A., Alpena, S. D. If, as you indicate, the epidermis of the skin of your young calf is scaly—although you say "scab all over"—merely on account of premature birth and perhaps undue exposure, the calf, if otherwise possessing sufficient vitality, will probably come out all right; but if there are really scabs all over I cannot advise you, because I have no idea what produced them, and, moreover, do not believe that the calf will live or be worth saving.

Probably Cellulitis.—J. N. S., Eglon, W. Va. What you describe appears to be a case of cellulitis. When this reaches you the enormous swelling has either subsided and the exudates have been absorbed, so that nothing more than a dietetic treatment and moderate voluntary exercise will be required, or the morbid changes have become chronic. If the latter, it is impossible to predict beforehand in what condition they may be, and therefore it will be best to have the animal treated by a local veterinarian.

Of a Paralytic Nature.—S. M. M., Garret, Ind. The shrinking of the muscles, or the sweeny, as you call it, is the result of the paralysis of one of the most important nerves in the leg. The blistering was uncalled for. The horse will get well in the course of time, but it may be several months, even a year, if the same is exempted from work, is well fed and allowed all the voluntary exercise he is willing to take. The best would be to turn him out to pasture as soon as there is enough grass, for then, most likely, a complete recovery will be effected during the summer.

Stomatitis.—W. S. J., Elk, Kan. What you describe appears to be a case of stomatitis (inflammation of the mucous membranes of the mouth). It is a disease that can be produced by many different causes; in fact, by almost everything capable of irritating these mucous membranes. In most cases the disease disappears if the causes, usually contained in the food, are removed or if the food containing the irritating substances is changed for food that does not and is clean and good. In other cases, however, the disease is caused by fungous spores or by an invasion of pathogenic bacteria, and then the disease is much more malignant, produces ulceration and often becomes fatal, especially in young animals. In such cases, too, the causes, if possible, must be removed and astringent and mild antiseptic fluids—for instance, a one-per-cent or two-per-cent solution of creolin in water—to be used several times a day as mouth-washes, are indicated. The same are best applied by means of a sponge tied to the end of a stick. Your letter reached me three days too late to be answered in March 15th issue.

Warts on Eyelid of a Colt.—L. F., Le Loup, Kan. Warts on such delicate skin as that of an eyelid can be destroyed by painting them over once every two minutes with a concentrated solution of corrosive sublimate in strong alcohol, to be applied by means of a camel's-hair pencil; but great care must be taken to get the solution in contact with nothing whatever but the surface of the warts. The application, therefore, is best left to a skilled veterinarian. As soon as the warts have become coated with a uniform film of the corrosive sublimate the operation may be considered finished.

An Abnormal Growth.—S. H. B., Reedville, Pa. If the abnormal growth, or "lump," as you call it, is situated on the lower part of the fore knee of your cow, and is spongy to the touch, it is very likely a so-called capped knee, and if so it is probably best to leave it alone, because it cannot be removed without causing a wound which will be subject to constant and unavoidable irritation by the peculiar way in which a cow gets up and down. If it is not a capped knee, but a growth situated in a place where it is not subject to constant irritation, it may be removed by a surgical operation, which, however, requires a veterinarian to perform it. The cause of capped knees consists in often-repeated bruising of the tissue.

Probably Pumiced Hoofs.—M. G., Glen Ullin, N. D. The apparent stiffness of your mare is probably the result of pain caused by pumiced hoofs, a morbid condition within the hoofs left behind by an attack of founder, or laminitis, from which she never recovered. Have your mare shod with a well-made pair of bar-shoes with a broad web and very concave on the upper surface inside of the nail-holes. Such a shoe will relieve the toe part of the hoof, will protect the very tender and more or less convex sole, and will throw considerable weight upon the usually healthy frog. For further information consult the various answers given to similar questions in recent numbers of this paper.

Itch (?)—J. R. G., Brownsville, Tenn. You say your cow has the itch. This, without any further description, is a very vague expression, because itching is not only produced by lice, chicken-lice or mange, but also by various other skin diseases. Maybe you use the term as a synonym for mange; but if you do you should have given a good description of all the symptoms and morbid changes, because mange is a comparatively rare disease in cattle, and nobody is justified in making that diagnosis unless there is strong proof in support of it. If your cow has lice consult FARM AND FIRESIDE of February 15th, and if she is troubled with chicken-lice banish the chickens from the stable and compel them to roost and to scratch somewhere else.

Cannot Swallow Rough Food.—J. R. J., Askum, Ill. If your cow really has difficulty in swallowing the rough food, as you suppose, the cause most likely would consist in some obstruction somewhere in the passage from the mouth to the stomach; but it seems to me it is more probable that the difficulty is less with the swallowing than with the mastication, and I have hardly any doubt that you will find the cause if you make a careful examination of all the molars, or grinders, of the cow, and if you examine them one by one you will probably find one or more diseased or defective. If you do, have it or them pulled and the trouble will disappear, unless the cow is very old and her grinders are worn out or several of them have been lost.

A Horny Scar.—S. C. F., Brewster, Kan. What you describe appears to be a horny scar, such as will be left behind by every wound on the lower extremities of horses, situated below the so-called chestnut, or horny wart, unless brought to healing without suppuration. The horny scar will be the larger and the uglier the larger the wound, the greater the loss of substance, the more profuse the suppuration and the longer it took to effect a healing. Such a scar can be excised; but as doing so causes more loss of substance it is not advisable unless there is positive assurance that the new wound can be brought to healing without any suppuration. If this cannot be done the second scar is very apt to be larger and uglier than the first.

Symptoms of Tuberculosis.—E. A. M., Flushing, Oreg. Since tuberculosis is a disease not only capable of developing its morbid process in almost any part of the animal organism, even the bones not excepted, but is also very insidious, and as a rule of slow progress, the symptoms are not only numerous and very diverse in different cases, but their combinations also show very marked differences in different individuals. Besides this it takes often a long time before any observable symptoms make their appearance, so that even to a veterinarian it is difficult and often impossible to base a definite diagnosis upon the symptoms alone, unless the disease has made very much progress. To describe all the symptoms possible in tuberculosis would require at least two full pages of FARM AND FIRESIDE—much more than is at my disposal. Even if such a description should be given it would do much more harm than good, because, with the exceptions of physicians and veterinarians, it would lead to erroneous interpretations, and therefore to many mistaken diagnoses. Fortunately such a description can be dispensed with, because the tuberculin test, at least during the earlier stages of the disease, is of much more diagnostic value, even to a competent veterinarian, than all symptoms combined. Further, all the symptoms ascertained by percussion and auscultation, and these are the ones that are of the greatest diagnostic value, cannot be observed by anybody but a trained veterinarian or physician.

Farcy.—H. P. S. If your horse has button-farcy, as you call it, a disease which is neither more nor less than external glanders, and communicable to man and beast, it will be your duty to inform the proper authorities, who will take care of the animal.

Incontinence of Milk.—E. W., Elmwood, Mass. If cows are unable to hold the milk, so that it runs off between milking-times, it is due either to a relaxed condition of the contractile fibers at the opening, or end, of the teats or to too great a pressure by the accumulated milk in the udder, but in most cases probably to both causes acting together, especially as the first-named one is often, at least to a certain extent, the result of the second. Too much soft and relaxating food and want of exercise may also justly be accused of being able to bring about such a relaxed condition. Therefore, the remedy will have to consist in more frequent milking, in order to reduce the pressure, and in avoiding all soft, watery and relaxating food, in allowing more voluntary exercise, and in feeding only such food as is not only nutritious, but will also produce strength and energy—good hay and grain, for instance.

Probably a Roarer.—L. H. L., Lehmaster, Pa. As wheezing in the sense you use it and roaring are almost the same, differing only in degree, your wheezing horse is probably what is usually called a roarer. Roaring or wheezing is produced if the inspired or expired air meet with an obstruction somewhere in the respiratory passage. If this obstruction is accessible and can be removed by a surgical operation the latter constitutes the treatment, which will be the more successful the more perfect the performance of the operation. In perhaps a majority of cases roaring is produced by paralysis of certain muscles of one of the arytenoid cartilages of the larynx. In that case, too, the roaring or wheezing can be removed by a surgical operation consisting in an excision of the paralyzed arytenoid cartilage, and is usually successful if the operation is performed in a perfect manner. Therefore, and as the operation is by no means easy and cannot be performed by every veterinarian, I advise you, if it is found that the wheezing or roaring of your horse has its origin in the larynx, to send the horse to be operated upon to the veterinary school of the University of Pennsylvania in Philadelphia. I will tell you, though, that the horse, even if the operation is ever so successful, will lose its voice.

A Blind Buck—No Need of Changing the Flock.—S. H. F., Gosset, Ill. If the inability of your buck to see, or to find his way into the field, was due to an affection of the brain similar to what is colloquially called blind-staggers in horses, the disease is caused by the presence of one or more cyst-worms in the brain. These cyst-worms are nothing more nor less than the larvae of a tapeworm of dogs, and develop from the eggs of the latter. The natural history of them is briefly this: The ripe proglottides, or joints of the tapeworm, each of them full of eggs, pass off with the excrements of the host, the dog. The proglottides for a while wriggle about, but soon, perhaps adhering to grass or other food-plants, die off, while the eggs, possessing great vitality, remain alive. If a sheep or other ruminating animal comes along and eats the grass with the eggs adhering the egg-shells will be dissolved by the gastric juice, the inclosed embryos become free, and being already provided with six hooks, which serve as organs of locomotion, at once begin to migrate until they reach the brain or the spinal cord, so that in about sixteen to eighteen days after the eggs have been picked up incipient cyst-worms will be found in the brain. The cysts, which may finally grow to the size of a plum or even larger, develop very gradually and do not seem to do very much harm as long as they are small. So it happens that the first plain symptoms of the disease but seldom make their appearance until fall or the latter part of summer. These first symptoms usually more or less disappear or even remain unobserved, but reappear much more pronounced and severe in the winter, and then as a rule the attack terminates in death. In some cases the disease may already become fatal during the first manifestations of sickness. The disease is much more frequent in lambs than in older sheep, for the simple reason that in lambs the tissues are more tender and the young embryos have less trouble in reaching their destination, the brain, while in older sheep they usually fail and get stuck and die off before they reach the brain or spinal cord. The disease once developed is practically incurable; therefore, the only remedy must be sought in prevention. As dogs constitute the hosts of the tapeworm, every suspected dog on the sheep-ranch should be killed and be buried, and every sheep that dies of the coenurus disease, also called "gid"—or, at any rate, its head—should be buried so deeply that no dog, wolf or fox can resurrect it. If this is done the disease will at once disappear, provided no new dogs are procured until the disease has become extinct. To dispose of the old flock of sheep and to procure others will do no good whatever, and it would be foolishness to sell improved sheep and to replace them with scrubs.

There was no mistake on my side when I referred to an answer given O. D. H., Kendalia, W. Va., in the number of February 1st, only that answer was, probably for want of space, crowded out of the Western edition of FARM AND FIRESIDE and appeared only in the Eastern edition. Notwithstanding that my FARM AND FIRESIDE is sent to me from the office as soon as possible, it never arrives until the time for sending off my manuscript has expired; hence I had no means of knowing that just that answer would not appear in the Western edition. Limited space forbids to answer the same questions over and over again in every successive number.

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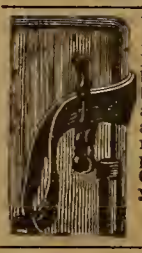

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THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

A year ago the readers of this department were urged to begin preparations early in the spring for a flower and vegetable exhibit. The suggestion is renewed this year. Few occasions can arouse the enthusiasm and stimulate the energy so much as a real agricultural fair. Many of our county fairs have lost sight of the farmers' interests. The farmers in a small community can have a fair that in point of interest, attractiveness and excellence of products would put to shame the elaborate county fair costing hundreds, sometimes thousands, of dollars. The comment most often heard at any of these local affairs is, "Why, this far excels our county fair!" Begin now to plan for a fair in the fall. Select your favorites, lavish on them care and affection; you will be richly repaid for your labor. Moreover, you will stimulate a love for excellence of products in your own community. In the proper season suggestions for the conduct of such a fair will be given in these columns.

One of the happiest afternoons my pupils and I ever spent together was the observation of Arbor Day. We had cleaned the school-yard the night before, and had with much care selected and dug the trees—maples and elms principally. On the afternoon of that memorable day we dug the holes, planted and watered the trees. It was my first term of school; likewise my first effort at tree-planting. Why so many of the trees lived has ever been a mystery to me. Beneficent nature must have looked on our intentions rather than on our deeds, and rewarded them from the pure goodness of her bountiful heart. We named the trees, and as there were more scholars than trees compromises had to be made. The first tree planted was named for the newly inaugurated president, Harrison. I doubt not we derived as much pleasure from our work as did those who, a few weeks before, celebrated amid a blaze of glory the inaugural ceremonies. Confident we are that in coming years children will bless the unknown hands which provided them with a grateful shade, while the pomp and ceremony will have been forgotten or eclipsed by far more splendid functions. The children had become familiar with Longfellow, Holmes, Whittier and Lowell, and trees were planted to commemorate their services to us. One tree was named after a railroad promoter who was quite a hero in our eyes. His daily life was worthy the honor paid him. Other trees we planted, and native vines to cover the unsightly outbuildings. Some of them died, and we learned our first lesson in how not to plant trees. Probably the lesson taught by their dying was of more value than that taught by the living ones, for it led us to inquire why they died. We then realized the almost human needs of plant life.

Why not observe Arbor Day this year in beautifying our school-yards? Plant native vines to cover the outbuildings, and seeds of quick-growing plants to train over the windows. I am not sure but that if I was teaching I would have some fruit put out, such as grapes, currants and fruit-trees best suited to the situation of school-grounds. Be assured the children would jealously guard their treasures. Native trees easily transplanted yield more satisfaction than those of foreign growth. If the teacher and pupils do not feel quite equal to the task of transplanting, let them ask the advice of a neighbor who has mastered the art. He will be glad to tell, and perhaps will come and help. After the work is done enjoy a picnic lunch in the near-by woods if the sun is still high and the weather permits. If not, go into the school-room. It will not appear nearly so dingy and dark in the light of anticipation of the beauty and color that is to follow from this day's work.

A number of readers have asked me to prepare papers for them for some special occasion. Some have sent manuscripts, asking for corrections and criticism. Most of the letters betoken intelligence. A little more self-reliance would induce them to do their own work. It would be a pleasure to render the desired assistance did it seem wise, necessary or expedient. The task of answering all these friends in the way they desire would be herculean. Then, I feel sure that the energy and inventive genius of our people will enable them to help themselves if they earnestly try.

If one finds it impossible to prepare a paper, say so frankly and display a willingness to do that which he can best do. When one is compelled, for courtesy's sake, to wear an expression of deep interest while some inexperienced person attempts to be wise or witty he certainly is a martyr. I would not disparage for a moment well-meaning efforts, but it seems rather foolish, in order to conform to custom, to try to do that which one is so poorly fitted for. Each has some one particular in which he excels. Let him speak of that, naturally and easily. His own interest and enthusiasm will arouse the interest and enthusiasm of the listeners. He will confer a real and lasting benefit. His own self-respect will be increased because of the consciousness of a deed well done, and the remarks after his back is turned will be far more complimentary and consoling. Essays are usually more or less skilful compounds of what their writers have read. Too often the points are ludicrous in the extreme. What care you for what John Smith can tell you of "friendship," "self-reliance" or "courage" when you can go to the fountain for your own supply? What you want is the real John Smith—his thoughts, his life, his experience—not a miserable concoction of other people's thoughts. If John—the real John—can prune a tree perfectly, or bud or graft; if he can turn a beautiful furrow, or raise a better crop of corn than his neighbors, let him tell you in his own unconstrained style how he does it. Don't compel him by your miserable bugbear public opinion to sift out the grain and give you the chaff. Rest assured his every act, look and gesture will convey far more striking and beautiful lessons on the ethics of life than the most laborious and carefully prepared paper.

"Would you discard essays altogether?" Certainly not. Let those who can write do so; but to the middle-aged, who are toil-ridden and who have had no experience in that line, the task is much harder than they ought to be asked to perform. Let a spirit of fairness prevail. Do not demand of those who are already laboring under a nervous strain duties far more exacting because unusual. Let each do the work he is best fitted for. Many who would otherwise be glad to go into the grange, and who would make excellent, helpful members, are deterred from doing so by that miserable bugbear "essay." Young people should be encouraged to put their thoughts on paper. The widened sphere of the farmer will broaden more and more; he will be forced into new social relations; new duties will be thrust upon him. Encourage him while young to easily and gracefully perform these duties. The habit is easily acquired in youth and will not be forgotten when he becomes old.

President Hyde, of Bowdoin College, writing in the "Outlook" urges all to weigh "the material in the scales of the personal, and measure life by the standard of love; to prize health as contagious happiness, wealth as potential service, reputation as latent influence, learning for the light it can shed, power for the help it can give, station for the good it can do; to choose in each case what is best on the whole, and accept cheerfully incidental evils involved; to put my whole self into all that I do, and indulge no single desire at the expense of myself as a whole; to crowd out fear by devotion to duty, and see present and future as one; to treat others as I would be treated, and myself as I would my best friend; to lend no oil to the foolish, but let my light shine freely for all; to make no gain by another's loss, and buy no pleasure with another's pain; to harbor no thought of another which I would be unwilling that other should know; to say nothing unkind to amuse myself, and nothing false to please others; to take no pride in weaker men's failings, and bear no malice toward those who do wrong; to pity the selfish no less than the poor, the proud as much as the outcast, and the cruel even more than the oppressed; to worship God in all that is good and true and beautiful; to serve Christ wherever a sad heart can be made happy or a wrong will set right; and to recognize God's coming kingdom in every institution and person that helps men to love one another." Let us practise these precepts.

The general topic for the second quarter is, "Education."

The subtopic for April is, "How can the grange exert a greater educational influence upon its members?"

Supplementary topic, "Are our public schools as useful as they might be, and what can be done to improve them?"

We have at various times suggested means to make the grange of greater educational value to the members. Occasional lectures from men and women experienced in some particular line of work would give zest to the meetings. Get a banker to discuss business matters, a lawyer to elucidate some of the dark places of common law; the members of the faculties of many colleges will go a reasonable distance to lecture if their expenses are borne. Farmers who have made a decided success in some lines of farming would be valuable help—not necessarily the regular institute lecturers, as there are others who are just as successful, but who do not find it possible to go into the regular work.

The best work, however, must come from the members themselves. Outside help opens up new avenues of thought. To be of use the members must follow up the line of thought suggested. A favorite plan is one which has been mentioned before, that of assigning some particular line of work to one person. Let him investigate and report at the various meetings during the year. Let him be prepared to ask and answer questions, or, better still, to indicate where and how the answers may be found.

Above all, get a good working library, and use it. Let a part of the meetings be given to the reading of selections from various authors. Let there be a variety of subjects. Shall your library contain works of fiction? Most assuredly. The one hundredth person will read the more abstruse books; the ninety and nine should be provided for. But let your fiction be from the world's best authors—Scott, Eliot, Thackeray, Dickens, Hawthorne, Hugo, some of Dumas' and Ebers', and of the lesser lights a few. Of course, you will want "Uncle Tom's Cabin," "Jane Eyre," "Thaddeus of Warsaw," "David Harum," and some of the newer novels; but do not spend your money for trash. Stedman's "Victorian Anthology" and "American Anthology" are invaluable works in a small library. The student of history will be delighted with Gibbon's "Decline and Fall of the Roman Empire." The agricultural works are indispensable to the progressive farmer. Storer, King, Roberts, Stewart, Henry, Bailey and others have devoted the best years of their lives to solving the problems that daily arise to vex the farmer. In essay, poetry and philosophy I have again called your attention to works of the highest value. The foregoing is not meant to be a complete list, but only suggestive of those books which any neighborhood that desires to be considered intelligent and progressive cannot be without. A well-chosen library well read will be the most valuable educational help that is available for the average rural community. Begin now to build one. Get a few books at a time, if necessary, but get those that will be of permanent value to you, that will contribute to the right ideas of life, and those the reading and study of which will be an open sesame to any kind of company a healthy, well-balanced mind may desire.

Come the tumult whence it will,
Voice of sport or rush of wings,
It is a sound, it is a token
That the marble sleep has broken
And a change has passed on things.
—Emerson.

For now the Heavenly Father
Makes all things new,
And thaws the cold and fills
The flowers with dew;
The blackbirds have their wills;
The poets, too.
—Tennyson.

AN OBJECTION TO JOINING THE GRANGE

"Nothing in it financially—it don't pay." That is not true. It has been demonstrated over and over again that members of the grange can save enough by their co-operative buying to more than pay all their grange expenses. Grange insurance pays. In some granges co-operative selling pays.

But suppose it doesn't pay in the sense of returning ten per cent on every dollar paid out; doesn't it pay to become better educated? Doesn't it pay to make choice friends? Doesn't it pay to help secure wise legislation? Doesn't it pay to shake yourself out of the routine and broaden yourself?

Or, to put it the other way. Does it pay to spend every waking hour digging for dollars? To starve soul and mind grinding for "gilt?" To make yourself an animal hunting for food, warmth and shelter, instead of a man seeking happiness and culture and growth of all that is noble and divine?

The grange does pay—every member of it says so, and they know more about it than you do.—Michigan Farmer.

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Some Easter Suggestions

By Bertha Knowlton

IN THE whole calendar of holidays, or holy days, none is more beautiful than Easter. Spring is in the air; resurrection is the theme of all nature. We feel impelled to contribute to the general fund of human happiness, and so we study up for days beforehand very pleasant surprises for our friends.

Easter gifts ought to mean something, and the simpler ones into which we put most of ourselves will best suit the spirit of the season. For the little folks Easter without eggs would be like Christmas without Santa Claus. We who remember the exceeding great joy derived from the eggs of our childhood, gaily colored with brilliant cotton prints, will not omit a generous supply of these for the youngsters. Good dyes, water-color paints or even pen and ink may be used effectively. Any design traced on the shell of a hot egg with a greased point will stand out boldly after the egg is plunged into boiling-hot dye-stuff. Endless devices are possible. Take a little trouble, for the children will never forget it.

Hyacinths, jonquils and tulips started early and cared for by one's own hands until Easter morning carry all manner of glad tidings to the recipient. A pot of sweet English violets speaks whole volumes of Easter truths. Flowers of every rank and condition are suitable symbols of a season which is pre-eminently one of life and joy.

If we would give more lasting gifts, pictures offer tempting possibilities. Even Perry pictures and their kind, which can be bought for a cent apiece, may be made into dainty offerings. They mount nicely on an eight by ten card, and neatly framed with a narrow strip of binders' cloth, or paper which may be had prepared with mucilage, behind an eight by ten glass the cost is slight and the result pleasing.

To some of our friends a collection of madonnas, to others cathedrals, to yet others animals mounted and bound in book-form, would be a most acceptable gift. The covering or case might be of linen, with simple designs in outline, tied with dark-brown ribbon and lettered in brown. This color is about as serviceable as anything one could choose.

Better yet are the Soule photographs, which come higher, fifteen cents apiece, but are really gems. Mounted on heavy brown cardboard and arranged in some pleasing style with ribbon in two shades of brown—a very light golden and very dark rich color—the effect of some of the cherub faces and figures is charming. One of the prettiest mountings for a picture in brown tints is a rough, creamy-white cardboard smoked at the edges or even slightly scorched over gas or candle. With a little care the scorching shades into the cream almost imperceptibly, and is a charming setting for such a figure as Queen Louise.

In this day of Vandyke cards and belief cards and Ruskin cards there is a wide field for original designing. A large gray cardboard with a well-mounted portrait of your friend's favorite author, and a selection lettered in white, with substantial cord for hanging, will give pleasure until it is shabby with time, when every such thing should be lovingly consigned to flames.

Book-marks are utterly useless to most readers, but we all know a few friends who would appreciate even a book-mark. Blue-prints on the daintiest of cards tacked to blue ribbon may be full of suggestion if the scene is one familiar and well loved. The little three-cornered markers to be slipped over the corner of the leaf may be made very dainty if one uses a brush and colors.

An album of kodak pictures of familiar places is a gift greatly prized by the absent member of the household. Perhaps the greatest charm of Easter and the planning of simple gifts is that the custom is not so general as to impose obligations upon anybody. May it be many a day before gifts are so elegant and entertainments so elaborate as to make of Easter a conventional grown-up holiday instead of the fresh, spontaneous young thing it is at the present time.

THE ORIGIN OF APRIL-FOOL DAY

How the custom of sending one upon a bootless errand, or of playing off little tricks upon unguarded individuals on the first day of April, commonly known as April-fool day, originated is unknown, though many suggestions have been offered.

The Romans gave to this month the name of Aprilis, from aperire, to open, because it is the season when the buds begin to open and nature wakes from the sleep of winter; at one period of the world's history it was regarded as the first month of the year. This fact has led to the suggestion that when the calendar was changed in France in 1564, and January first, instead of April first, as before, became the first day of the year, those ignorant of the change sent out and expected the customary New-Year's gifts on April first, thus becoming subjects of ridicule to their wiser fellow-citizens, who applied to them the term April fool.

Others affirm that the custom is a travesty of the sending hither and thither of the Savior from Annas to Caiaphas, and from Pilate to Herod, because during the Middle Ages this scene in Christ's life was made the subject of a miracle-play at Easter.

The most probable theory regarding the custom is that it is a relic of some old heathen festival. It is significant that the Hindus to-day practise precisely the same tricks on the thirty-first of March, when they hold what is known as the Huli festival. Whatever its origin, it is a custom that from time immemorial has been universally popular thoughout Europe.

In England the person imposed upon is known as an April fool. The favorite jest in that country is to send one upon an errand for something ridiculously nonsensical, or to make an appointment which is not kept.

In Scotland the person fooled is called a gowk. Gowk is the Scotch for foolish person. It is the time-honored custom in that country to send some unsuspecting individual, usually a boy, with a note to a neighbor. The note reads as follows:

"The first and second of Aprile
Hunt the gowk another mile!"

The neighbor reads, then sends the boy on with another note containing the same lines. This is repeated until the boy discovers the joke, then the last one to receive the lines starts the boy home, calling after him:

"Rin for your mither, boy; rin, rin, rin,
The eggs are ready, but she hasn't a hin;
And if you wait till the eggs grow cool,
Then all your life you'll be April fool!"

In France, where traces of the first April-fool capers of modern times are found, such a person is called "un poisson d'Avril;" that is, an April fish. The name implies that he swallows the bait prepared for him like a fish. There is a tradition that on April first all fish go to the bottom of the stream to deposit their eggs; consequently, he who goes fishing on that day is fooled—he catches no fish—hence the term April fish.

In our own country the observance of the custom is confined chiefly to children and young people, who derive much innocent amusement at the expense of the unwary. The jests usually consist of little tricks played on unsuspecting individuals whereby ridicule may be fastened upon them; and when they fall into the snare they are greeted with shouts of laughter and the title April fool applied to them.

KATHARINE E. MEGEE.

ONLY APPLES

There are times in almost every family when the only available fruit is apples; but one need not tire of them easily, for they may be served in so many ways.

For breakfast the cores may be removed, the openings filled with sugar and the apples baked. Served with cream they are a delicious first course. Apples stewed and well sweetened and treated to a grating of nutmeg may be served with shredded wheat in the form of shortcakes. Then there are the sliced apple pies sweetened with sugar, the old-fashioned deep apple pie sweetened with molasses and spiced with cinnamon, the stewed apple pie with two crusts, and stewed apple pie with a thick meringue.

Apple sauce is always relished with pork or goose. A very pretty way of serving apples with meat is to dissolve one cupful of white sugar in one cupful of water, and then cook rounds of apple in it until tender, but not broken. A border of these apple-rings, one overlapping another, will make an ordinary dish of sausages look like a very smart dish. Apples may be made into sweet pickle, and are then suitable to serve with beef or lamb.

A quickly prepared dessert may be made by stewing a few apples, and while they are stewing mixing up a little biscuit-dough. Put the apples in the bottom of a baker, add a little water if they are dry, cover with the biscuit-crust, bake, and serve with liquid sauce. A slight variation from this is the apple dumpling, and the Dutch apple pudding made by covering biscuit-dough with quartered or sliced apples, and baking. All these puddings should be served hot with sauce. Quartered or sliced apples may be used instead of other fruit in tapioca puddings, or after being cooked in sugar and water molded in gelatin jelly. Stewed apples used between the layers and on top of a shortcake will make a supper dish that hungry children will always enjoy. Apple marmalade makes a delicious filling for tarts. Apple jelly every housekeeper likes to have in the house, for it may be served with meats, used with fancy puddings or for tarts and Washington pies. Apples quartered, covered with sugar, a little water added, and baked in a slow oven in a covered dish, will make a very rich dark red sauce. Another way of preparing them for sauce is to slice and cook until tender in currant jelly which has been dissolved in hot water. An old-fashioned but appetizing dish for a cold day is fried apples. To prepare these, try out all the fat from several slices of salt pork. When the pork is crisp remove from the pan and place around the edge of a small platter. Fry the apples, which have been cut in circles without peeling, in the pork fat, and when soft turn on the center of the platter on which the pork was placed.

Salads of apples, walnuts and celery served on crisp lettuce-leaves are perhaps one of the daintiest ways of using the always-useful apple.

A dish which I often saw prepared in childhood is liked by many. Pare the apples and cut in quarters, place them in a frying-pan, add sufficient molasses to sweeten, then cover and let the apples cook until soft. Toast slices of bread, then cook them for a few moments in the hot apple sauce until soft, and remove to a platter and pour the hot sauce over them. This is a dish which should not be allowed to cool before serving. INEZ REDDING.

THE CARE OF GLOVES

No woman can consider herself well dressed if her gloves are shabby, and the best of gloves will soon lose their freshness if they are not given proper care. Always give yourself plenty of time to put on your gloves, and be sure that the fingers are well pushed on and the glove carefully buttoned. If the hands perspire, use glove-powder in the palm before putting on the gloves. When removing the gloves turn them carefully from the hand, then straighten them, right side out, and let them air and dry thoroughly before putting them away. If there are any ripped places or buttons loose, mend them before putting the gloves away, then they will be ready for wear when wanted; otherwise they may be forgotten, and when wanted there will be no time to mend them.

Always use fine cotton instead of silk to mend gloves. There is a cotton that comes for this purpose in all the various glove shades. If the glove is torn instead of ripped, work with buttonhole-stitch along the edges to be joined and then join these stitches. Sometimes several rows of buttonhole-stitches, one into the other, will be needed to fill the space.

Black glace gloves which have grown white at the finger-tips and along the seams may be improved by putting a few drops of black ink into a teaspoonful of olive-oil and applying it to the spots with a soft flannel. If a bit of flannel is wound around a burnt match and used for this purpose it will save inking the fingers. A little ink may be used on black suede gloves, but not the oil. Black suede gloves are the least economical to buy, as they show wear very soon, and I have never found anything that would improve them much when they have once lost their freshness.

White or light-colored gloves, either suede or glace, when but slightly soiled may be cleaned by putting them on the hands and rubbing them with corn-meal, in a bowl, as if washing the hands, then rubbing them with a piece of clean white flannel. Small soiled spots can be removed with a clean rubber eraser. A piece of kneaded rubber is best, as it is soft. Any white or light-colored gloves may be cleaned by washing them in benzene or gasolene; but as either is very explosive great care must be taken. Neither must ever be used in a room where there is any light or fire, and the windows should be open during the process and afterward until the odor disappears. Put one glove on, and with a piece of white flannel dipped in the fluid rub every spot and then the entire glove. When the gloves are clean, rinse them in more of the fluid, and pin them to a line out of doors until all odor disappears, then dust them with a little talcum powder, both inside and outside, to soften them. MAIDA McL.

FROM DAY TO DAY

Ah! mother's gettin' old and gray;
Some day, why, she'll be laid away
Down in the field by th' old mill-stream,
Where all the roses love to dream.
And when thet happens, like ez not,
The old farm'll jest 'bout go to pot;
We'd lose all hope ef ma was gone,
Fer she most runs the farm alone.
Up with the sparrers every morn,
Callin' the chickens to their corn;
She cooks a meal I wouldn't trade
Fer the finest farm-house ever made;
She cleans th' house an' sets the hen,
An' shoos the pigs back to their pen;
She feeds the cow, an' then she goes
Inter th' house, an' sews, an' sews,
An' bakes a cake, an' runs th' churn,
An' gathers in th' wood t' burn;
An' ef you say, "Ma, rest awhile!"
She'll answer, with her old sweet smile,
"Child, I ain't tired a bit. Are you?
We can't rest when there's work to do."
An', supper o'er, the chores all done,
She hears our lessons, one by one,
An' then she sees th' cat is fed,
An' puts the children all to bed,
An' when th' family's tucked away,
Then she, alone, kneels down to pray.

* * * * *

Yes, after all is said and done,
Your mother is the only one.

—Success.

SCOLDING AND NO SCOLDING—A CONTRAST

"What makes you talk so loudly, mother?" said Alfred, impatiently. "I ain't deef; there's no need o' your hollerin' at me!"

"Well, you don't pay any attention to what I say if you do hear me!" retorted his mother, in the same tone as before.

Alfred went out, shutting the door not very gently behind him. Mrs. Baker went on with her sweeping.

"How rough Alfred is!" she sighed. "And he's getting to be so saucy! I don't know what I shall do with him!"

The door opened and two rosy girls of eight and ten appeared.

"Here—look out; don't get in my dirt!" she called out, sharply, as they ran across the room and began to take off their hats and rubbers. Nellie stopped with one rubber off and looked at her mother soberly for a moment.

"Are you cross?" she asked.

"Why, no," said her mother, "but I shall be if you bother me; I've got an awful lot of work to do, an' it's enough to make anybody cross to have folks running over the floor when they're sweepin'."

"Scoldin' seems awful queer when I first get home," mused Nellie. "We don't have any scoldin' at school only when some horrid girl gets mad, an' then Miss White makes her so 'shamed. Miss White don't scold; she's always talkin' low and nice."

"Humph! I should like to see her here talkin' low and nice to you girls and Alfred; I'll bet you don't act so bad at school as you do at home! I hope you don't, anyway, for shame's sake!"

After the children had gone to bed Mrs. Baker did a great deal of thinking. Was she getting ill-mannered herself? Had she lost the sweetness of her young womanhood? What sort of a time would there be in Miss White's school-room if she herself were the teacher, and if she should take the manners of her every-day life into the school-room?

She had seen Miss White once, and she recalled her pleasant face and easy, quiet ways. The children were getting old enough to make comparisons and to see things with eyes of their own. She was aware that in comparison with Miss White she would not appear very refined or womanly. She felt angry and spiteful at first.

"I'm as good as she is if I don't dress quite so well and have such company manners!" she said to herself.

Then regret and shame crept into her heart, and finally she fell to crying. After she had had a good cry she felt better, and she went to bed resolving that her children should not be obliged to give her a second lesson.

A week later, as Nellie was giving her mother the usual good-night kiss, she said, "I like home better'n school. Miss White loves us all a little, but there's a lot of us and it isn't much apiece; but here there's only us and you can love us a good big lot."

Mrs. Baker's reward had come sooner than she had expected.

MARY M. CURRIER.

THE LATEST FABRICS FOR EARLY SPRING SHIRT-WAISTS

As women of any and every age now condescend to wear shirt-waists, and not only condescend, but very gladly keep their wardrobe well supplied with them, a few hints may not be amiss. The first spring shirt-waists seen in the large department stores of the metropolis are of washable Scotch and French flannels. They are very light in weight, yet have enough body to require no lining, and enough substance to keep off the chill of the cool spring days. In fact, they will undoubtedly be worn late in the summer, and even all summer where cool evenings at the sea-shore and mountains are to be planned for. But for the early spring days which compose that "betwixt and between" season when a coat is an abomination of heat and the lack of one a "tempting of Providence," these waists were particularly designed and are certainly well adapted.

These French and Scotch flannels are guaranteed of fast colors and unshrinkable. They are beautiful in texture and are made up in all the spring shades—in plain colors, green, bright pink, brilliant scarlet, heliotrope, gray, navy-blue, cadet-blue, black, tan and plain white. They are also shown in stripes—pink and white, blue and white, pink and green, brown and white—and in delicate and attractive plaids and checks, light and dark. In fact, there are so many beautiful colors and designs that one almost loses the power to decide which is the prettiest.

If they are too new to be obtained in the smaller cities and towns, a simple request mailed to any of the large department stores of New York City or other large cities will bring forth a batch of exquisite samples, and the cost by mail for enough goods for a shirt-waist will be almost nominal. Considering the fact that these flannels are dainty enough to be made up into quite elaborate waists, and even the palest shades of them are washable, they are far more desirable than the ordinary flannels, which when they are washed descend of necessity to the next youngest or smallest member of the family.

Possibly you may care to know how some of these shirt-waists are made, and thus with the aid of the FARM AND FIRESIDE patterns you can turn out the same results, for there is certainly no reason why careful cutting of patterns and patient fitting and sewing should not produce an attractive shirt-waist. Patterns are made so accurately yet simply nowadays that only ordinary ability and no special skill is required to fashion the shirt-waist of the present day, so no reader should fear to attempt it.

A dark blue shirt-waist was made with a perfectly plain and seamless back, with a box-plait from neck to waist. The front was perfectly plain except for five forward-turning half-inch plaits on each side, the waist fastening invisibly with hooks and eyes, or the dress-snaps so handy and so much used. The sleeves were the new modified bishop; in other words, they were of the new style, which is flat at the wrist, but narrow or scant at the top, in this case being coaxed into the arm-hole, to be perfectly plain and tight-fitting at the top and with only a slight fullness at the wrist. A small turn-over cuff completed the sleeve. The neck was finished off with a narrow neck-band, over which could be worn a plain white linen collar and tie, a high collar of the same goods or one of matching or contrasting velvet.

Another waist, of rich garnet flannel, was made with a more elaborate back, with four outward-turning plaits from shoulder to center of waist-line (each side), and the front with four forward-turning plaits (each side) stitched from the shoulder for about six or seven inches, the fullness thus allowed giving a pretty shape to the bust and being gathered into four inches space at the waist-line. The overlapping side was shaped into three inward-curving scallops, the two points being fastened down to the opposite side apparently by buttons, but in reality invisible hooks and eyes. The sleeves to this waist were the regular new bishop-sleeves, showing much fullness at the top, and more fullness, sort of long pouch-shape, at the wrist. A narrow band completed each sleeve, one end lapping and ornamented with a button. The collar of this waist was made high, of the same material.

A plainer waist, and yet an exceedingly stylish one, was made with a simple French back—that is, an absolutely plain back with only a very few gathers at the center-back waist-line—the front with a few gathers at the top and bottom, finished off with a box-plait and fastened by studs through eyelet-holes. The sleeves were the new bishop-sleeves, full at the top and quite full at the wrist, and made with the always admired plain cuff fastened with cuff-buttons.

In connection with these waists I might say here that instead of being placed on an inch band or allowed to extend below the waist-line, as formerly, they are now usually made to extend to the very lowest possible waist-line, and fit over the skirt-band in order to get the long-waisted effect in the front. Sometimes the back and under-arm gores are allowed to extend, as formerly, below the waist-line and under the back of the skirt, but the fronts seldom or never. The waist, as I have stated, should extend to the lowest possible waist-line in the back and one or two inches, as preferred, below the waist-line in the front, and finished off with a narrow binding of the same material. This gives the desired straight-front effect, and also allows for the curved belt which is so popular at present. E. L. H. R.

WHAT AMUSEMENTS SHALL OUR YOUNG PEOPLE HAVE?

A traveler tells us that amid the Arabian hills is a valley given up to the culture of odorous shrubs and spices, where the air is redolent of fragrance. Going away, the visitor finds that the perfume clings to hair and garments for days. I have seen small tracts in India not given up to the culture of "odorous shrubs and spices," but to uncultivated growths of noxious weeds and poisonous vines.

There are amusements and amusements. The one kind will enable the participant to carry away the perfume of "odorous shrubs and spices," the other class will make it incumbent upon him to bear about his person the scent of "noxious weeds and poisonous vines."

The Japanese make a specialty of dwarfing trees for the amusement of people; methinks we Americans make a specialty of dwarfing people by our amusements, not merely by the quality, but by the quantity. Parents must amuse their children, teachers their pupils, lawyers their clients and public speakers their audiences.

Young people fed on sweets continually lose their relish for more healthful foods. The confections are responsible for a two-fold wrong. Just so the harmful amusements. They do harm themselves, besides giving a distaste for the things which are more healthful.

Some amusements simply amuse; others amuse and elevate. Young people should be taught to enjoy that which will give healthful entertainment and delightful recreation at the same time.

"All work and no play makes Jack a dull boy" is just as true as it is old. There are so many elevating, instructive, broadening methods of spending a social evening that there should be no temptation to indulge in those things which may lead to harm. Young people should always remember that we are building character for the future; today is not an isolated twenty-four hours, but it is the mother of to-morrow, while the father is yesterday; and it is not usual that the children are utterly dissimilar from their parents.

Sometimes the questions are honestly asked by our young people, "What are harmful amusements? In what may I engage? What must I eschew?" Let us summon to our aid one of the contestants in the ancient Olympic games. Our young people are running a race; so was he. They are striving for a crown; he was likewise. His coronet was of perishable leaves; our crown will be the gem of immortality. He felt it worth while to make preparations; the more ought we. He did not waste his vitality nor throw away his powers, but housed all carefully for the furthering of his ends. No one of those ancients thought of entering the race without weeks, months or even years of preparation. In their eating and drinking how carefully did they study the various articles of diet, rejecting everything that could not be assimilated into nerve-tissue, brawn and muscle. If they could abstain from everything that did not build up their physical man, surely our young people can refrain from whatever will not strengthen the mental and moral natures.

There are recreations that do not recreate, but rather degenerate. Will it not be safe to avoid that which cannot become assimilated into nerve-tissue, strength and firmness of character? It is pitiable to see young men and women frittering away their lives in trifling and wickedness, dwarfing their powers, when the Creator has endowed them with many talents.

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THIS MONTH I OFFER:

No. 1179. 80 acres Pope Co., Ark.; unimproved; 2 miles R. R. Station. $500.

No. 1463. 160 acres, Chase Co., Neb.; no buildings; 4 miles R. R. $600.

No. 1694. 160 acres, Sherman Co., Kan.; no buildings; 6 miles R. R. $900.

No. 86A. 200 acres, Pulaski Co., Ark.; good buildings; 4 miles R. R. $1,000—$500 cash.

No. 1376. 160 acres, Nez Perces Co., Idaho; fair buildings; 9 miles R. R. $1,100.

No. 1633. 280 acres, Cleburne Co., Ark.; good buildings; 20 miles R. R. $1,500—$1,000 cash.

No. 1476. 160 acres, unimproved, Chase Co., Neb.; good land. $1,600—$1,000 cash.

No. 1247. 156 acres, Douglas Co., Mo.; fair buildings; 14 miles R. R. $1,600—$1,200 cash.

No. 1303. 160 acres, unimproved, Sanborn Co., S. Dak.; 5 miles R. R. $1,800.

No. 1721. 1,280 acres, Howard Co., Tex.; no buildings; 4½ miles R. R. $1,920.

No. 1199. 18 desirable building lots, Seattle, Wash. $2,000.

No. 1475. 160 acres, Norton Co., Kan.; 125 under plow; 1½ miles R. R. $2,080.

No. 1314. 40 acres, Kent Co., Mich.; orchard and small fruits; good buildings; 2½ miles R. R. $2,250—$1,250 cash.

No. 1635. 480 acres, Stevens Co., Wash.; small orchard; fair buildings; stream on land; 16 miles R. R. $3,000—$2,000 cash.

No. 1496. 160 acres, Lincoln Co., Neb.; 80 under plow; good buildings; 10 miles R. R. $3,500.

No. 1524. 320 acres, La Moure Co., N. D.; good buildings; 7 miles R. R. $3,840—$2,800 cash.

No. 1674. 100 acres, Victoria Co., Tex.; small orchard; 4 miles R. R. $4,000—$2,500 cash.

No. 1391. 140 acres, Lac qui Parle Co., Minn.; 85 under plow; stream on land; 5 miles R. R. $3,380—$1,980 cash.

No. 1597. 160 acres, Vernon Co., Mo.; good buildings; 3½ miles R. R. $4,400.

No. 1310. 1120 acres, Dawes Co., Neb.; fair buildings; 9 miles R. R. $4,500—one half cash.

No. 1646. 280 acres, Prairie Co., Ark.; orchard, good buildings; 2½ miles R. R. $5,040—$2,000 cash.

No. 1337. 570 acres, Columbia Co., Ark.; orchard, good buildings; 3½ miles from R. R. $6,000.

No. 47A. 600 acres, Arapahoe Co., Colo.; 2½ miles R. R. $6,000.

No. 1188. Half interest in live-stock business and 240 acres land, Rooks Co., Kansas, $6,250.

No. 1545. 480 acres, Cass Co., N. D.; 430 under plow; good buildings; 2½ miles R. R. $8,640—$4,840 cash.

No. 1681. 800 acres, Charles Mix Co., S. D.; fair buildings; 9 miles R. R. $11,200—$4,000 cash.

No. 1421. 1120 acres; Red Willow Co., Neb.; young orchard, all necessary buildings; 4 miles R. R. $12,000—$8,300 cash.

No. 400R. 160 acres, Doniphan Co., Mo.; good buildings, 74-acre orchard. $16,000.

No. 1632. Almond orchard, 40 acres, Merced Co., Cal.; good buildings. $16,000.

No. 1644. 440 acres, Howell Co., Mo.; peach orchard; good buildings; R. R. station on farm. $18,000—$10,000 cash.

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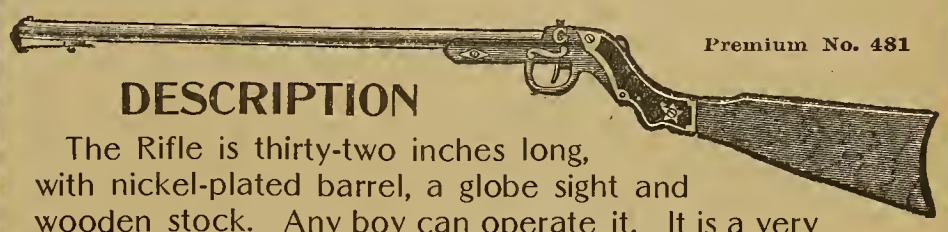

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THE LILIES' ANSWER

BY JENNIE BETTS HARTSWICK

When the rays of Easter morning
Stole within the dusky gloom
Of a stately sanctuary
They revealed a world of bloom.
Lilies wreathed the carven pillars,
Lilies hid the chancel-rail,
And upon the marble altar
Lay a crown of lilies pale.

Soon the fragrant hush grew vocal
As the full-toned organ spoke,
And the golden-voiced sopranos
Into hallelujahs broke.
But the lovely lilies wondered
Why so far they had been brought,
For those smiling, careless people
To their beauty gave no thought.

They had flowers in abundance,
Why should these be gathered there?
All their lives were like the lilies,
Knowing neither toil nor care.
Was it for the surpliced preacher?
No—his mind was all intent
On his polished phrases telling
What the Resurrection meant.

So the wonder went unanswered
Till the last faint organ-tone
Died away amid the arches,
And the lilies bloomed alone.
Lo! upon the sacred threshold
Paused a woman, peering in;
Want was written on her garments,
On her face was written sin.

Slowly up the aisle she faltered,
Fearful lest her courage fail,
Till she stood among the lilies
Close beside the chancel-rail.
Ah! she trembled at her daring;
Well she knew her lack of right,
Who was yesterday a sinner,
To approach the lilies white!

But the ranks of royal blossoms
With delight were all astir,
As the whisper ran among them,
"'Twas for her, for her, for her!"
And before the holy altar
Low she cowered to her knee,
While the throng of happy lilies
Compassed her with purity.

SUGGESTIONS FOR EASTER TRIFLES

As the joyous Easter season once more draws near many persons are no doubt wishing they could think of some gift to be made out of eggs which they could prepare for the children or their friends. Among the numerous articles which have proved attractive here some of the following may be new to them:

Wee children are always pleased with make-believe chickens. Stuff an egg-shell with cotton, and let some stick out from the upper part of the small end, then with needle and thread shape the cotton to represent the downy head of a young chick. A lemon-seed may be sewed in to represent the bill, and two black beads the eyes. A little practice will soon enable any one to give them a life-like appearance.

An egg-shell may be broken so as to represent a hooded cradle, and if one of the penny jointed china dolls be placed in it on a bed of cotton, with a little roll for a pillow, and a bit of lace to serve as a spread, tucking it in, it will appeal to the mother-love of the small girl.

A basket with a handle may also be cut from a shell and then used to hold small candies or flowers. If desired to strengthen the frail basket, a fine wire may be placed along the edge and covered with the ribbon binding the edge.

Droll faces representing Chinamen, negroes, dudes or children when painted upon shells fastened to a piece of cardboard, and trimmed with tissue-paper to represent appropriate neckwear and hats or bonnets, always afford considerable amusement.

A hard-boiled egg may be painted to represent a rabbit. Cut paper to make the ears and wee tail, and glue them in the proper position.

Bonbon-cases filled with the recipient's favorite candy are always acceptable. Three shells of the same color and size may have one third cut from the smaller end and the edges then bound with ribbon, placing a bow where each two are fastened together.

If a goose-egg can be obtained, a dainty jewel or bonbon case may be made of it by cutting one inch from the smaller end to use as a lid. Paste a binding over the edge of the case and the lid. If to be used as a jewel-case paste a lining in it of silk over wadding. A clove with the little ball removed may be glued to the top of the lid and used as a knob. Three cloves placed equidistant around the base of the case may be used as legs, or standards. The cloves may be colored to match the ribbon.

Another bonbon-case may be made by painting a hen's egg to represent a strawberry, then covering the small opening in the large end, after the shell is filled with small candies, with green tissue-paper cut to represent sepals, leaving a twist of the paper for the stem. Paste the sepals lightly into place. If, however, you wish to emboss a name or motto upon the case, draw it upon the shell with melted wax, then dip the egg in strong vinegar, which will eat away the part of the shell not covered by wax. The shell, after being washed free from the vinegar, may be dyed any color desired before the wax is removed by scraping, which will then present a raised design in white upon a colored ground.

Fondant may be molded in the shape of an egg and a loop of ribbon or cord embedded in the large end by which to hold it while dipping into melted chocolate and to hang it up until hardened, as is done in large confectionery establishments. Monograms may be drawn upon candy eggs by making a funnel of paper and forcing through it, as through a pastry-bag, some nearly cold boiled icing which has been colored as desired.

Butter-scotch or maple-sugar eggs are always appreciated, and are made by filling the empty shell with the melted candy and allowing it to remain in the shell until the candy becomes hard, after which the shell is broken off. An egg of beeswax made in the same manner is very acceptable to the woman who does her own sewing.

Booklets having the outline of an egg and decorated with an appropriate design may be made at home and left blank, to be used as a guest-book or as a note-book; or it may be filled with quotations on a subject that interests the receiver, or with kodak views or water-color sketches, or even with Easter pictures for the small child.

Besides these trifles, which are expected to outlast the day or week, a quantity of hard-boiled eggs with shells colored in various ways should be provided the children for use in different games; but the interest in the shells need not cease when they are reduced to fragments, because many an hour may be pleasantly spent in bad weather by giving children the shells, with a bottle of mucilage, especially that made from cherry-gum—though if the mucilage is not at hand, wax would do—then encourage the children to stick the fragments together to represent flowers. Children find this as delightful an occupation as working with clay, and soon surprise one with evidences of accurate observation. If, however, only uncolored shells are saved for the children, a box of water-color paints used with magilp or a solution of gum arabic in water will enable the children to secure very realistic effects.

VIRGINIA REED.

A FUR-LINED HOUSE

"Oh, mother, mother, mother, do come here, quick!" called a chorus of children's voices from the barn.

Mother Grey dropped her sewing and hurried out to see what was the matter, fully expecting to hear that baby Bess had fallen from the hay-mow, or that Tom had cut his foot on the big scythe, or that some other dreadful thing had happened. When she reached the barn, instead of the tearful face and bruised body she expected to see she found the children all gathered in the corner eagerly examining something and chatting the while like so many magpies. Nor were "they" making all the noise, for overhead two tiny birds were flying wildly about and calling out, in shrill notes, "Chippery, chippery, chip, chip, chee!" which little Susie afterward translated to mean, "Mother Grey, do take your children away!"

The "something" proved to be an old straw hat filled with sticks and leaves, and in the center was the daintiest little nest that you can imagine. It was shaped much like an oven, and was formed of moss and lined inside with bits of fur and feathers. And in the nest were seven tiny eggs, white, and thickly blotched with reddish-brown spots. Nothing could possibly be more snug and charming than the little fur-lined nest full of speckled eggs. No wonder the children wanted mother to see it.

Mother Grey told the children that the nest was the home of Jenny Wren and her mate, who were at that moment flying about over their heads, and that they must come away at once and let Mistress Jenny, who had been out for a bit of an airing, return to her nest and cover the speckled eggs, or they would become chilled and not hatch: then how sad Jenny and her mate would be!

Mother Grey also told the children, as they walked back to the house with her, that the wren ranks next to the humming-bird in point of size, but that, although so small, its voice is very strong and sweet, and if there were no other reason for so doing, the wren should be protected because it is one of our sweetest singers. But there is yet another reason—it is one of the best friends the gardener and farmer have, for it thrives upon the insects which destroy plant life.

Mother Grey also said that the wren is a very sociable bird when kindly treated, and always prefers building its nest near to the dwellings of man, often selecting very odd places. It has been known to build in the sleeve of a coat hung against the wall in some outbuilding. If the place chosen for building the nest be too large, as was the old hat, it is filled in with sticks or other convenient material.

Every day after that the children would slip into the barn and take a peep at Mistress Jenny sitting so patiently in the tiny moss oven, keeping the speckled eggs warm, while her mate flitted in and out, sometimes just to see how Mistress Jenny was coming on, but more often to bring her a fat, juicy worm. At first the birds were very shy and much disturbed over these visits, but by degrees they grew less timid, until at last they seemed not to notice the children, even though they came quite close to the nest.

And what do you think the children saw one morning when they peeped into the "hat house?" Why, seven tiny baby birds! Then how glad they felt to think that they had come away that day before the speckled eggs were chilled.

KATHARINE E. MEGEE.

REMEMBER THE BIRTHDAYS

Birthdays are important events. The birthday of each individual is of importance to the world as well as of personal interest. Each birth is the beginning of a life that is to live through all eternity, and each recurrence of the natal day should be observed in a befitting manner.

A beautiful beginning for each member of the family is to plant some long-lived tree, either fruit-tree or some one of the various nut-bearing trees, on the day that the little one becomes one of the family, and let this tree be his or her personal property.

Every child delights to climb trees, gather fruit or nuts, and if the tree is his very own the enjoyment will be greatly enhanced. These amusements have the advantage of being entirely innocent and healthful; they develop the muscle and strengthen and invigorate the entire body.

An apple-tree is not only an object of beauty when covered with its delicate pink and white bloom, but is equally pretty when its branches are bending with its weight of rosy or russet fruit.

If one has not the space for a tree, a flowering shrub will answer the purpose, perhaps. Flowers furnish food for thought, and it is of the highest importance that the mind is properly fed and developed. The influence of flowers is for good only. Every flower, every blade of grass is a token of God's love, faithfulness and good-will to his creatures. The flowers and fruits which adorn the home of childhood possess a greater charm and beauty than any other fruits or flowers; they are so connected and mingled with the association of parents, children, brothers and sisters that they become sacred to the memory of each.

No one ever forgets, while memory lasts, the flowers and fruits of his childhood home. These flowers and fruits are silken threads woven and interwoven into life's fabric, and call forth memory's tenderest and sweetest recollections to the end of life.

M. E. S. CHARLES.

SPRING

BY CHAS. E. LESLIE

When the ice breaks on the river,
And the snow melts off the hills,
We give one last long shiver,
Then our heart with rapture thrills.
Everything in nature's humming,
And we gladly venture forth,
For we know that spring is coming
And the birds are flying north.

All our cares are cast behind us,
Or in joy and sunshine lost,
For there's nothing to remind us
Of the winter's cold and frost.
Not one troubled thought comes o'er us
That has strength enough to mar
All the pleasure that's before us,
We're too happy now by far.

The wild flowers' petals now unbend
And peep up through the grass;
In fact, we cannot comprehend
The joy that's come to pass.
Let one and all give praise to Him
Who rules us from above,
And sends at close of winter grim
These tokens of His love.

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SELECTIONS

WOMAN'S LOVE OF JEWELS

In all countries and in all ages women seem to have inherited a love for precious stones, and it is no wonder that these gems are popularly supposed to exercise some subtle magnetism that influences their natures. This inherent passion may account in a measure for the recent craze for some mascotic jewel, a survival of medieval superstition. Upon impressionable people certain gems seem to wield a potent influence. Who has not listened to weird tales of some heirloom talisman, which, when lost or stolen, presaged the ruin of a noble house? A person with a vivid imagination might even believe in the theory of the Pythagoreans, who formulated the doctrine that inanimate things are endowed with souls. Certain evolutionists of to-day trace the origin of man back to stones, asserting that in their adamantine bosoms they contain the all-prevading essence of spirit, and that the sparks emitted from their crystalline hearts is the revelation of the imprisoned soul within.

From time immemorial jewels have served as propitiatory offerings at holy shrines, as token of amity from one crowned head to another, as mystic messengers of affection between distant friends, as pledges of constancy exchanged between plighted lovers. Men have bled and died, kingdoms have crumbled, families have been rent asunder, husband and wife parted over the disputed possession of some coveted jewel. Perhaps poor Marie Antoinette, of ill-starred memory, might have kept her pretty head upon her shoulders had it not been for the unfortunate affair of the diamond necklace. Women in all ages have succumbed to the temptation of gems. Faust bartered his soul for the love of a woman; Marguerite sold hers for a gem-starred bauble.—Chicago Chronicle.

RUSSIAN CARAVAN-TEA

A large part of the tea which comes from China into Europe is brought across the steppes of Siberia by caravans of sledges, which have for their destination one of the eastern towns of Russia. Although the caravans require at least a year to cross the vast extent of Siberia, this method of importation is the most economical, on account of the very heavy duty which is laid upon tea brought into any of the Russian seaports. These caravans are usually made up of fifty to seventy sledges, and sometimes a caravan is seen which contains two hundred or three hundred. Each of the sledges carries on an average five bales of tea, packed in cow's skin and weighing from fifty to eighty kilograms each. The sledges are drawn by a single horse, and are united in groups of five or six under one driver. Each sledge carries in the rear a bundle of hay and a quantity of oats, which serve as a supply for the horse of the sledge following. To provide for the first horse the order of the sledges is changed from time to time. The caravans make halts of three or four hours in the villages, to give the drivers time to take care of the horses and to eat, but the drivers sleep only on the sledges en route, in spite of the fact that the temperature in these regions falls as low as sixty degrees Centigrade. The caravans finally reach the eastern part of Russia, from whence their cargoes are sent to Moscow, St. Petersburg and to the other large centers of distribution.—Campbell's Magazine.

ARITHMETIC THIRTY-SIX HUNDRED YEARS AGO

Probably the oldest book for home lessons in arithmetic was recently unearthed in Egypt. The papyrus, which was in excellent condition, dates from about 1700 B.C.—that is, about one hundred years before the time of Moses, or almost thirty-six hundred years ago. It proves that the Egyptians had a thorough knowledge of the elementary mathematics almost to the extent of our own. The papyrus has a long heading, "Directions How to Attain the Knowledge of All Dark Things," etc. Numerous examples show that their principal operations with entire units and fractions were made by means of addition and multiplication. Subtraction and divisions were not known in their present form, but correct results were obtained, nevertheless. Equations were also found in the papyrus.—Newcastle Chronicle.

What Women Say About Swamp-Root

Thousands of Women Have Kidney Trouble and Never Suspect It

To Prove What the Great Kidney Remedy SWAMP-ROOT Will Do for You, Every Reader of the Farm and Fireside May Have a Sample Bottle FREE

TO READERS OF THE FARM AND FIRESIDE:

"About 18 months ago I had a very severe spell of sickness. I was extremely sick for three weeks, and when I finally was able to leave my bed I was left with excruciating pains in my back. My water at times looked very like coffee. I could pass but little at a time, and then only after suffering great pain. My physical condition was such that I had no strength and was all run down. *The doctors said my kidneys were not affected*, and while I

Did Not Know I Had Kidney Trouble

I somehow felt certain that my kidneys were the cause of my trouble. My sister, Mrs. C. E. Littlefield, of Lynn, advised me to give Dr. Kilmer's Swamp-Root a trial. I procured a bottle and inside of three days commenced to get relief. I followed up that bottle with another, and at the completion of this one found I was completely cured. My strength returned and to-day I am as well as ever. My business is that of canvasser, I am on my feet a great deal of the time, and have to use much energy in getting around. My cure is therefore all the more remarkable, and is exceedingly gratifying to me."

117 High Rock St., Lynn, Mass. *Mrs. H. N. Wheeler*

Swamp-Root So Pleasant to Take

"You have no idea how well I feel. I am satisfied that I do not need any more medicine, as I am in as good health as I ever was in my life." So says Mrs. Mary Engelhard, of 2835 Madison Street, St. Louis, Mo., to a reporter of the St. Louis Globe-Democrat.

"For more than ten years I suffered with what the doctors termed female trouble; also heart trouble, with swelling of the feet and limbs. Last summer I felt so badly that I thought I had not long to live. I consulted doctor after doctor and took their medicines, but felt no better. A friend recommended me to try Dr. Kilmer's Swamp-Root, and I must say I derived immense benefit almost from the first week. I continued the medicine, taking it regularly, and I am now in splendid health. The pains and aches have all gone. I have recommended Swamp-Root to all my friends, and told them what it has done for me. I will gladly answer any one who desires to write me regarding my case. I most heartily indorse Swamp-Root from every standpoint. There is such a pleasant taste to Swamp-Root, and it goes right to the weak spots and drives them out of the system."

Mrs. Mary Engelhard

Made a New Woman of Me

"During three years I was frequently attacked with severe spells of sickness; many of these sick spells kept me in bed, dangerously ill, from three weeks to three months, under the constant care of the best physicians of Kansas City. The doctors said my kidneys were not affected, but I felt sure they were the cause of my trouble.

"Some doctors pronounced my case gall-stones, and said I could not live without a surgical operation, to which I would never consent. A friend suggested I try Dr. Kilmer's Swamp-Root. I began to take Swamp-Root regularly, and when I had used only three fifty-cent bottles I felt fine and was able to do more work than I had done in four years. It has made a new woman of me. I have had only one slight attack since I began to take Swamp-Root, and that was caused by being drenched with rain and catching cold. Stomach trouble had bothered me for years and had become chronic. I am now 44 years of age and feel much younger than I did ten years ago. I freely give this testimonial for the benefit of those who have suffered as I have.

Mrs. M. E. Dallam

Proprietress of Criswell House, 211 W. 5th St., Kansas City, Mo.

Sample Bottle of Swamp-Root Sent Free

If you have the slightest symptoms of kidney, liver or bladder trouble, or if there is a trace of it in your family history, send at once to Dr. Kilmer & Co., Binghamton, N. Y., who will gladly send you by mail, immediately, without cost to you, a sample bottle of the wonderful remedy, Swamp-Root, and a book containing many of the thousands upon thousands of testimonial letters received from men and women cured by Swamp-Root. In writing be sure to say that you read this generous offer in the Farm and Fireside.

Women as Well as Men are Made Miserable by Kidney and Bladder Troubles

It used to be considered that only urinary and bladder troubles were to be traced to the kidneys, but now modern science proves that nearly all diseases have their beginning in the disorder of these most important organs.

The kidneys filter and purify the blood—that is their work. So when your kidneys are weak or out of order you can understand how quickly your entire body is affected, and how every organ seems to fail to do its duty.

If you are sick or "feel badly," begin taking the famous new discovery, Dr. Kilmer's Swamp-Root, because as soon as your kidneys are well they will help all the other organs to health. A trial will convince any one.

Many women suffer untold misery because the nature of their disease is not correctly understood; in most cases they are led to believe that womb trouble or female weakness of some sort is responsible for their many ills, when in fact disordered kidneys are the chief cause of their distressing troubles.

Neuralgia, nervousness, headache, puffy or dark circles under the eyes, rheumatism, a dragging pain or dull ache in the back, weakness or bearing down sensation, profuse or scanty supply of urine, with strong odor, frequent desire to pass it night or day, with scalding or burning sensation—these are all unmistakable signs of kidney and bladder trouble.

If there is any doubt in your mind as to your condition, take from your urine on rising about four ounces, place it in a glass or bottle, and let it stand twenty-four hours. If on examination it is milky or cloudy, if there is a brick-dust settling, or if small particles float about in it, your kidneys are in need of immediate attention.

Other symptoms showing that you need Swamp-Root are sleeplessness, dizziness, irregular heart, breathlessness, sallow, unhealthy complexion, plenty of ambition but no strength.

Swamp-Root is pleasant to take and is used in the leading hospitals, recommended by physicians in their private practice, and is taken by doctors themselves, because they recognize in it the greatest and most successful remedy that science has ever been able to compound.

If you are already convinced that Swamp-Root is what you need, you can purchase the regular fifty-cent and one-dollar bottles at the drug-stores everywhere.

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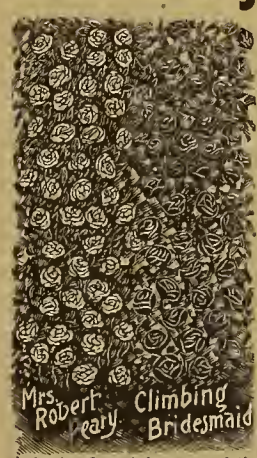

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Perle des Jardins.—Clear golden yellow, an indescribably rich and beautiful shade. Flowers extra large, full, globular in form, and richly perfumed.

Golden Gate.—Rich, creamy white, delicately tinged with golden yellow, with petals tinted with clear rose. Indescribably beautiful and a profuse bloomer.

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The Day After Death

By Hezekiah Butterworth

Chapter I.

I shall never forget that January night.

It was in a rural cottage among the savins. The moonbeams glistened on the snow-covered hills and woodland pastures. Within the house there was a tomb-like silence. The cat and dog lay close to the fire on the braided mat, and it was a relief to hear now and then the rustle of the morning-glory vines in a draft of wind over the porch door.

Old man Halliday was supposed to be dying. The doctor said that he "could not last a week" and that "he would probably never regain consciousness." The doctor—one of the old school—wore a wig and carried a silver snuff-box, and I did not question his opinions.

I was a "watcher." Such a one in a country neighborhood is a volunteer in unselfish human service, not the paid trained nurses of the city.

The old man had been in the Union army, was a pensioner, had drawn a back pension, and was reputed to have saved some seven thousand dollars or more in twenty years. He was regarded as a little "near" by his neighbors, but he had a very "feeling" heart full of kindling kindliness, a second self. His wife had died during the war. He had five nephews and nieces, who had neglected him as he grew old.

One day he confided to the minister's wife that he had been "making savings." She was never to tell any one. The secret took swift wings after it had been "confided" to the much-visiting woman, who made her visits interesting by her special confidences.

From that time the five nephews and nieces began to make errands to the old man, and inquire about his needs and offer to do little things which would cost them but spare time and no money. "Uncle Halliday was one of the creation if he were as tight as the bark of the trees," was the charitable biography allotted to him.

Just what Uncle Halliday's "savings" were or where he kept them became a neighborhood mystery. His many-sided nephews and nieces used to rub their noses betimes and say that they "wished they knew," with the usual quizzical expression of old New England days.

Uncle Halliday was a "clever" man, to use the New England word—a wayside philosopher; and as I sat by him that night he said a very queer thing:

"This may be my last sickness. It don't matter much how soon I go, for this world is boiler. You've heard tell that, haven't you? Our only true friends are those who do for us from willin' hearts, without any hope or expectation of reward. I wish I could be alive on the day after death." He lifted himself up on his elbow, and a comical, pitiful look came into his face. "And I wish—"

"What do you wish, Uncle Halliday?"

"Well, I hardly dare to tell you—it may be the last time—well, I'll tell you—" Farewell messages were greatly considered in the old neighborhood. They were regarded as the Scriptures of life. I bent forward, expecting a message as from the skies. "I wish I could eat a pandowdy once more, made by willin' hands and lovin' hearts, as it all used to be. I do—s'death!"

I dropped my eyes to the floor in amazement. What a thought for a man who was dying—a pandowdy!

Some of my readers who have not had an old colony grandfather may ask, "And what was a pandowdy?"

It was simply a great apple pie with appetizing spices baked in a big pan, so that the treacle and juices would run over and "candy" the crusts. It was served when good people had company, and it was sacred to "family returns" and to Thanksgivings.

The plum pudding is something more to England than a mere pudding; all England is in it—her traditions, her family love and lore. So New England went into the pandowdy of the old days. The apples in it stood for her orchards, the crust for her waving fields of summer wheat and the treacle for her ships to the Spanish Main. Even the allspice, cinnamon and mace had suggestions of the far ships that went to tropic seas. It was eaten with butter that recalled the dairy in June. The bountiful pie represented good-will, household faith and unity.

"What makes you-all shut up so?" asked Uncle Halliday. "A pandowdy is to me sort o' sacred. People used to send me pandowdy when they thought I was poor; but after I gave myself away to the elder's wife folks did not seem to remember me that way any more. They think I can provide myself with one. But the pandowdy was a dish that was given away when all the people came home again." He sank back on his pillows, adding, "I have exerted myself too much. Do you suppose people know what happens on the day after death?"

He became delirious. I sent the chore-boy for the doctor, and waited the old medical man's visit, with his gig and wig and gone-by snuff-box, with no common anxiety.

Uncle Halliday had made enemies. They had come into his experience since the peripatetic minister's wife had "locked up in the secrets of her own heart," as she expressed the case, the fact that he had made "savings."

He lay breathing stertorously. The doctor came in with the old-time bang and bluster, took the old man's hand, held up his bulging watch, and said, "The life-light flickers; he will never sense anything again." He shook his wise wig and listened to the ticking of the big watch. How could I question him? He laid his hand on the old man's head. "Uncle Halliday?" There was no tremor of response on the old man's lips. "Uncle Halliday, do you know me?" Silence. "His face will change soon and he will breathe no more; and yet his pulse beats firm, as with some latent vitality. That's mysterious."

Chapter II.

The dog started up. There had been a still, level snow, and there was the sound of bells in the air. A sleigh was approaching, and I could hear merry voices as the sleigh passed the bridge over the wayside brook.

I looked upon the white face of the old man, and, strangely enough, thought I could see that he heard the bells and the laughter. There was an expression of silent intelligence in his eyes. Had he heard, also, what the doctor had said?

In a few minutes five young people were at the door. I started up.

"I will let them in," said the doctor. "This is a solemn time; they do not know."

He tiptoed with great noise, tumbling over a chair and causing the dog to howl, and using language inappropriate to the serious occasion.

"Tell them to take off their things in the kitchen," said I.

I sat down by the side of the old man and took his hand again. Death was not in that hand. Not yet. I could feel his pulses beat hard and firm.

The young people were the old man's kin, his nephews and nieces.

"We thought we'd take a sleigh-ride in the new snow," said one of the nieces to the doctor, "and Uncle Halliday's case made a good excuse for our coming here. The night is just splendid! To-morrow night we are going to the apple-paring bee. How is the old man, doctor?"

The heartlessness of the tone depressed me; it caused the back of my neck to feel uneasy. The doctor said, "Hist, hist!" in a vibrating tone. It seemed as if the air spoke. Then he talked in a low, awesome voice of his professional opinion of the old man's condition, his wig bob, bob, bobbing.

I could feel from the lowering of his pulse that the old man was straining his ears to listen.

I do not know what the doctor said, but I heard one of the nephews say, in a hardly suppressed tone—tones picture the heart—"That is, he is as good as dead now—never will regain his senses again?"

I could feel the old man's pulse quicken; I was reading a silent language. His pulse throbbed. He could not be dying—he was not unconscious—his stertorous breathing had ceased, and he was intently listening to every word. His heart was hurt. I could feel that by the atmosphere.

One by one the sleighing-party looked into the room of their kinsman. The oldest of the party, a nephew, came to the bed and said, "Uncle Halliday?"

I felt a flash of warmth coming back to the old man's hand.

He heard the call; he did not choose to answer, but his thoughts were active. I could feel his mind.

"He will never rouse again," said the young man, an opinion that did not seem to awaken any expression of regret. The young man looked me in the face and asked, in a calculating voice, "Has he expressed any wishes?"

"Only one."

"What was that?"

"That he might have a pandowdy."

A queer silence.

"Has he made a will?"

"I know nothing about his affairs. I came here as his friend, because I would want a friend now if I were in his place. I love the old man, for he lived for good, as far as he was able, and did right as he was given power to see the right; and I pity him, for he is helpless, and I, too, am human. We all are—you are."

I could feel the hand in mine unconsciously tighten.

"But," said the young man, "you may have heard what he told the minister's wife, in strict secrecy, that he had secreted money. If that be so his kindred should know where his property is. It is their right to know. We ought to know to-night."

I could feel the old man's muscles shrink. Then his pulse rose again. I feared delirium.

"He was watching it with fixed eyes"

One by one the five young people had stepped into the room and stood around the bed. The doctor stood in the door behind them.

"Doctor," said the young man, "you have not heard that uncle has made any writing in our behalf, have you?"

"No; he has said nothing to me in regard to his property."

"Could you not rouse him for a moment, doctor?"

The doctor came forward and passed his hand over the old man's brow. "His temperature is better," he said. "Halliday—Halliday Holme?" he called, in a penetrating voice. There was no motion of the eye or lip. "He will be on the other side in the morning," said the doctor. Then the man in the wig rolled away in the gig.

I spoke to the old man. "Uncle Halliday, your brothers' children are here."

"Ask him where he keeps his money," said one of the nieces, in a tone direct from the heart.

There was a slight convulsion in the old man's face. One of the young men turned away from the bed, which had no voice for him, and said, "We ought to search the house. It's our right, our duty. Let us light candles, and open his secretary, and go up to the chambers, to the harness-room, and see what is there. It is our duty."

I saw the old man move; he shook his head. A changed color came into his face and the edge of his lip trembled. Some latent life was coming back again.

"We must find the key to his secretary," said the young man.

The old man made another movement of his head—a shadowy outline movement, as if expressing a negation. The dog saw it from his place on the mat, rose up and uttered a pitiful cry. The animal seemed to feel that his master needed sympathy.

There were hurrying steps in all the rooms now. The house seemed alive like a hive. In the midst of the searching I was left alone with the old soldier. His lips trembled with forthcoming words:

"I heard 'em! My brain burns—I seem to be on fire! I wish I could be alive on the day after death. I'll make a sorry funeral for them! Go, chore-boy, go and say to my old neighbors that I want them to come and make a pandowdy for me to-morrow! Then I will die!"

Chapter III.

He had made an enemy of an old colored woman called Cloe. He had once given away eggs to a poor, sick family where she had hoped to sell some. "Such doings as dose," she said, "was grindin' de face of de poo." She was a "middling good woman," but she looked into the bushes as he passed by. He had also offended the old poultrywoman by underselling his own poultry in a case of need. She never offered him a seat in her carriage as they passed on the road. He could have a carriage of his own. He had made an enemy of Joh, the selectman, by refusing to go to the polls at a close election. He had given offense to the church by opposing the hiring of singers when some of the members were in arrears for rent, and he had incurred the ill-will of the army post by taking Charles Sumner's views of the disposal of the battle-flags.

"I remember all who need my heart," he used to say. "I try to help all and to hinder none, but I make enemies when my open hand shuts the hand of others."

He listened to the searchers. The effort was too much; he seemed to lose his consciousness again, and breathed heavily. I heard him say, "Pandowdy—home lights—the old home table—true home hearts. Oh, for the orchards and fields!"

Chapter IV.

The young people came back. They had found nothing.

"You said that he had expressed one wish," said the nephew. "What was that?"

"That he could once more eat a pandowdy made in the old way, as a gift by true hearts and hands. They used to make those old New England pies in his boyhood." I tried to express the old man's inner thought.

"Was that all? What did he hide his money for—from his own kin, too? Why should he expect gifts from anybody?"

"Where is his key?" said a niece, shaking a gourd over the mantel. The gourd rattled. She had found a key. She turned toward the small room adjoining, where the old man kept his secretary, and closed and locked the door.

"Can this be the true world?" he asked, when she had gone.

"No," I answered; "there is a better one."

"Where?"

"Here."

"When?"

"When the old family heart returns to its true self. It is the second thought that is the true first nature. Wait and see."

Chapter V.

The scene that followed these unusual events stands out in my mind like a picture in some far, lone room.

A key ground the lock of his secretary in the adjoining room. The old man started up and opened his eyes, as one rising from the dead. He was in a delirium. He threw back the bed-clothes with a mechanical, nervous energy, and exclaimed, "It maddens me—my brain burns!" He threw out his arms. His delirium overpowered him.

I moved back in surprise and terror toward the kitchen door. He stepped upon the mat and swayed to and fro. He passed me in his long red night-robe like a specter, and locked the door to the hall and held the key in his hand. He turned toward me his excited face, raised his hand and said, "Hush! If you are my friend don't hinder me now! I am not a dying man, but I will die to this world within an hour!"

He went on uttering delirious fancies. Suddenly a new thought seized him. He moved, or rather glided, toward a cupboard over the shelf above the fireplace.

"Put wood on the fire," he said; "pine-knots! I want a hot fire—a red-hot fire!" He whirled his arms in the loose sleeves of his red night-dress like the fans of a windmill.

I put some dry wood on the fire. It was a keen night, and the wood caught at once and burned high. I thought that he meant that he would need a hot fire for his bloodless limbs, for cool air crept in through the "listen-bound" windows.

He opened the cupboard, looking at me, and took from it a mahogany box. I could see that he was still in delirium. The white light of intense mental force was in his eyes.

"More wood!" he said. "I want a hot fire; this will be a cold night for more hearts than one! I am going to make a sacrifice! A red-hot fire!"

I put more wood on the live coals. He stood there before the fire, and opened the box and looked into it. The dog pawed his long night-robe and uttered a helpless cry.

"They do not know what is in here; they do not know. I will unlock the door, and you go out and tell my dear nephews and nieces of hollow hearts that I am on my way to recovery. Knock when you come back and I will let you in. I am going

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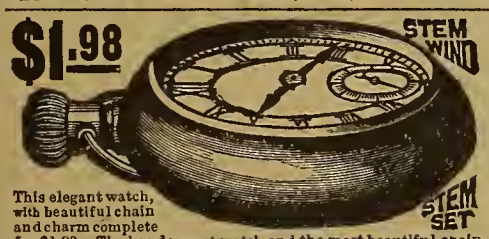

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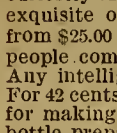

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to burn the mahogany box. It will be a costly fire!"

Bewildered and amazed, and hardly knowing what I did, I obeyed him, and heard him turn the key behind me. I had no sooner passed into the kitchen than the truth of the purpose of the old man flashed upon me. The box, as I fancied, contained his "savings," which I now believed to be thousands of dollars in bonds or greenbacks. Why had I left him! How was I to meet his young kinsmen, who were exploiting the long-neglected rooms!

I gasped to one of the young men, "Say, the old man has got up!"

"Cracky!" said he, using a provincial word. "And what for? Let me go and see!"

He tried the sick-room door, but it was locked. "Why did you leave him alone?" he asked. "It may be his dying delirium! Who can say what he may do! He may inflict some injury on himself!"

He summoned his four kinsmen, with many calls. They heard his story, and were struck with a kind of superstitious fear.

Then they heard the dog howling pitifully within the room. They tried the door, and one of them said, "Uncle Halliday?" There was no answer. "Uncle Halliday, what has happened?" Still no response.

We lingered long by the door, consulting. The ice-bound elm creaked, the dog pawed the door.

CHAPTER VI.

"Let us go outside of the house and look through the window," said one.

The garden of the peonies, sage and wild grapevines lay covered with snow, but we followed the suggestion.

An unaccountable sight met our eyes! The old man, in red night-robe, stood there in the middle of the room with lifted hands, now and then wavering to and fro. Before him the mahogany box was burning in the red fire, and he was watching it with fixed eyes. I seem to see him now. The box had been some time burning and now flared up in a brown light.

"Dying! I am dying to the world now!" he said, deliriously punching the fire. The box sent up a steady stream of red light like a column. "Waiting—waiting my change in this world!" he said, in an unnatural voice.

Then the box broke open and some fragments of paper, as glued together at the top, whirled upward in the smoke in a draft into the flue. The burnt paper fluttered and spread apart like wings, then went out in the soot. Why did he seek to destroy the contents of the box?

"It is the last time!" he cried. "I am dying to this world forever! Here I go—here I go!" He lifted one foot, and then the other, like one in an ogre-dance. The box sank into the coals in red ashes. "I am dead!" He staggered back to the bedside.

"Who knows but what he has been burning his greenbacks?" said one of the young men. "Coupons, it may be—who knows? He is out of his mind."

A fire-stick fell into the ashes, broken by the blaze. A great column of smoke rose up and fell, like a mimic volcano.

"Ashes—ashes!" said he. "All is ashes in this world when a man stands empty-handed before God, as I do now! To-morrow will be the day after death! I will know then who my true friends are!"

"We must force the door," said one of the company.

[TO BE CONTINUED]

CHARACTER, NOT COMPLEXION

Booker T. Washington, in traveling through Georgia, took a Pullman car, says an exchange. Mr. Washington said, in speaking of it afterward:

"I was traveling from Augusta to Atlanta. Although they have a separate car service for colored people in some sections of the South, as a rule I have no trouble in getting accommodations on a Pullman car. Just as I entered the door two ladies from Boston happened to meet me, and, recognizing me, asked me to go and sit in their section. While I sat there they ordered supper, and invited me to eat with them.

"The car was full of Southern white men, who began to eye us curiously; but, knowing that the ladies were innocently offending, and that I couldn't well explain the situation, I sat down and ate with them, conscious that it was likely to raise a storm. Afterward I excused myself and went to the other end of the car. Meanwhile it became noised about in the Pullman who I was.

"Then, to my great gratification, almost every white man in that car came to me personally, and took occasion to cordially thank me for the work I am trying to do for my people. If a man is really trying to perform an unselfish service for his kind, sooner or later the most prejudiced must come to recognize it."—The Youth's Companion.

THE AGE OF THE BIG TREES

An age as great as 5,000 years has sometimes been ascribed to the giant trees of California. Professor Charles E. Bessey, of the University of Nebraska, regards this estimate as very much exaggerated. He says that he once counted with great care the rings of growth of a tree felled in 1853, and which was fully twenty-four or twenty-five feet in diameter, so that its stump served as the floor of a dancing-pavilion. The rings numbered 1,147, and that number would represent the age of the tree in years. Professor Bessey adds that he gravely doubts whether any of the existing trees approach the age of 2,000 years. —The Youth's Companion.

BEST O' FELLERS

Best o' fellers, fur an' wide,
Never knowed it till he died.
Said all roun' the neighborhood
He was nachully "no good,"
Till one day he closed his eyes
To the worl' an' to the skies.
Last words that we heard him say,
"I wuz allus in the way;
Jest ain't wuth a tear or sigh;
Tell 'em all good-by—good-by!"

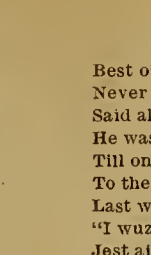
Best o' fellers, fur an' wide,
Never knowed it till he died.
Till poor souls aroun' him pressed
An' laid roses on his breast;
Till we heard beside him moan
Folks he'd helped all unbeknown;
Little children roun' the place
Cryin'—kissin' his white face!
Best o' fellers, fur and wide,
Never knowed it till he died.

Best o' fellers! . . . That's the way
We're a-doin' day by day—
Findin' thorns in gardens sweet
When the flowers are at our feet!
Allus stumblin' in the night
When the mornin's jest in sight!
Holdin' of our love until
Hearts it might have helped are still.
Best o' fellers, fur an' wide,
Never knowed it till he died.

—Atlanta Constitution.

THE STORY OF GRAN'MA BLACK-CAP

By Lafayette McLaws



"IT WAS during the yellow-fever epidemic in Savannah, in the summer of '37, that Mammy Maria returned from one of her medicine and nourishment distributing trips through the city, bringing a little girl about two years old," Gran'ma White-Cap said one summer afternoon, when I asked her to explain to me why it was that Gran'ma Black-Cap wore a heavy black velvet cap which not only entirely covered her head, but was ornamented by a thick black fringe that fell over her forehead to her eyebrows, while she, Gran'ma White-Cap, wore a dainty white muslin cap.

"'I foun' her in Mr. Dunwoody's quarter, miss," she said, as she stood the child on the floor in front of my mother. 'I was passin' the Pulaski Hotel when one of the women ran out and said that she thought that there was somebody sick ncx' door, for she heard a child cryin' in the night, and some one a-groanin' toward mornin'. I went in an' foun' this little gal a-playin' round on the floo' an' her mammy dead on the bed. She was a likely lookin' young mulatto woman who I had never seen befo', but I laid her out and notified the guard.'

"'She is a pretty child, Maria,' said my mother, who was busy packing jellies and broths for Mammy Maria to take out on her next trip, as she stopped for an instant to examine the little girl. 'I suppose she may as well stay here and play with the children until your master returns; he will know what to do with her. She seems very light for a negro. Did she have no other clothes?'

"'No, ma'am; nothin' but the little cotton night-slip, with the whistle on the string aroun' her neck,' Mammy Maria replied; and she turned to help my mother, leaving your Uncle Edward and me to make friends with the stranger.

"She was a merry, b ck-eyed little girl, and would tumble about on t loor in her frolicking like a little kitten, always picking herself up without a whimper. My father was one of the two physicians who remained at his post in the stricken city, my dear, and those first weeks, until help came, he had to be going both day and night. But when physicians and nurses did finally arrive, and he fell back into his old habits, during the first meal that he took at the table with us mother told him of the little girl. Mother had named her Lydia because of an L scratched on the whistle which hung about her neck. Father sent out to the kitchen for the child, and Edward, thinking she was to be sent away, began to cry as though his heart would break. And I, who was near nine years old, joined in until father quieted us by saying that he had no means of sending her off until the fever stopped. Then, he said, if we still wanted her, and mother was agreed, he would buy her for me. From that time on Lydia was treated as my little maid. She slept on a pallet in the corner of my room, and when not busy picking up my thimble or running on little errands for me, was playing with Edward, who was only about three years older. When cold weather came and the fever was stamped out, communication being established with the rest of the world, we learned that Mr. Dunwoody, with his family, had gone abroad to remain several years. So, although nothing definite was done toward buying Lydia, she remained with us until Edward's tenth birthday, when something happened which so shocked my parents that they sent her away in disgrace.

"Ned's birthday was in the spring, and my parents always made a great day of it for us and our little friends. But his tenth birthday was to surpass all others. It was to be our first evening party, and you may be sure we anticipated the greatest pleasure. The invitations were from six to nine, and we tried hard to persuade my mother to make it longer. It didn't seem possible to crowd as much fun as we knew we would have into three hours. Finally the day came. It was beautiful, and when the hour itself arrived we

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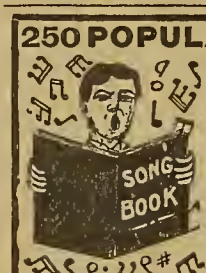

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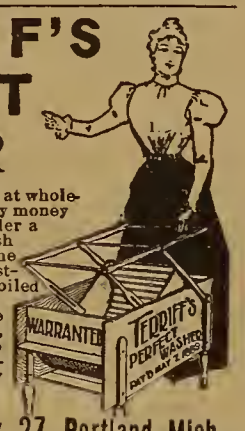

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were wild with delight. Lydia helped me to dress, and I remember how pleased she was at my appearance. I heard her whisper, as I passed the window where she stood with some of the other servants watching us receive our guests, 'She is the prettiest of them all. There ain't another young lady in Savannah who can hold a candle to her.'

"It made me as vain as a peacock, and when supper was announced, and Ned insisted on leading me in, because he would not name his sweetheart, I was proud indeed. He blew out the ten candles, but when the time came to cut his birthday-cake I had to do it, for he still refused to select any of the other girls. When we went into the drawing-room to dance, to tease Ned we all declared we would not take a step until he asked his sweetheart to lead with him. I was the only girl in the room who had a partner. I was to dance with Dick Habersham. The other girls stood about waiting for Ned to make his choice, while the boys, teasing, urged him on.

"'Come, Edward,' said father, who had come into the room with Judge and Mrs. Habersham, our next-door neighbors, 'you have carried your joke far enough. I cannot allow the girls to be kept waiting any longer. Select your sweetheart and ask her to lead the dance with you.'

"'You would not let me dance with her if I did,' Ned replied, so defiantly that every one stopped talking and looked at him in astonishment.

"'Would not let you dance with her?' father repeated, in surprise. 'Why not? Where is she?'

"Edward was a well-grown lad, big and tall for his age. The sight of him standing alone in the middle of the room facing father, with bright, defiant eyes, flushed cheeks and his hands working nervously, was a revelation to us all. I am sure none of us had ever realized what a handsome, manly fellow he was.

"'Where is your sweetheart, Ned?' father repeated, amused at the emotion which he thought was the result of our teasing.

"'There she is,' Edward replied, lifting his arm and pointing toward the door opening out on the back piazza, where the servants stood looking on. 'It is Lydia! She is my sweetheart, and when I am twenty-one I intend to—'

"'Edward, my son!' It was my mother's voice in an agony of remonstrance that interrupted him, and when I turned toward her father was leading her weeping from the room.

"Before we could move or even had time to think Judge Habersham was in the middle of the room, with arms extended, exclaiming:

"'Come, young people, join hands! We will have a game of Many-Many-Stars!' And in less time than it takes to tell it he had us romping around the room, keeping time to the quickstep which his wife played on the piano.

So busy did he keep us during the rest of the evening that when nine o'clock came I think we had all forgotten the one disagreeable occurrence of the evening. It came back the next morning, however, when mother told me that Lydia had been sent to Mr. Dunwoody, and that father would buy me another maid. A few weeks later Edward was sent away to school, and in a short time the incident of the birthday party faded from my memory.

"The second Christmas after my marriage I came up from Florida with my husband and his father to visit my parents. Edward was at home for the holidays. It was his senior year. One morning just after breakfast a servant brought the mail into the sitting-room, and my father, after distributing it, sat down to investigate the contents of a small package that had fallen to his share.

"'This is most peculiar, most peculiar,' he repeated, looking up from the letter which he had found in the package. 'I can't make out what the fellow is driving at!' he exclaimed a few minutes later, looking like a thunder-cloud. 'Here, Governor,' to Governor Huguenin, my husband's father, 'do me the kindness to read this, sir, and tell me what the scoundrel is driving at!'

"'Why, my friend,' said Governor Huguenin, after glancing over the sheet, 'this is not intended for you. It is for a young man—a man who was in Boston last summer. It must be for your son, and the writer simply neglected to add Junior.'

"'Edward,' called my father; and my brother, who had been in the adjoining room, came in.

"'Is this for you?' And he handed him the letter.

"Neither my mother, my husband nor I had any idea of the contents of the letter, and we watched my brother anxiously. As he read the expression of puzzled surprise left his face. He flushed—I could not tell whether from anger or shame. Then the flush fading left him deathly pale. When he finished reading he looked up and met my father's stern gaze unflinchingly.

"'It is for me, sir,' he replied.

"'Do you mean to say that you are paying for the education of some young woman in Boston without the knowledge of your parents?'

"'Yes, sir.' And his face was drawn and gray, as though he suffered.

"'And may I ask, sir, who that young woman is?' father demanded, his hands on the arms of his chair, half rising.

"There was a moment's silence. We all held our breath.

"'Lydia,' Ned finally answered, and he half turned toward mother. Then I knew that what he suffered was for his mother and not for his own sake. 'Lydia; Mr. Dunwoody's Lydia,' he repeated, as though to make sure we understood.

"Mother moaned and threw her black silk apron over her head. I knew that the scene at Ned's birthday party came back to her. Father left his seat, and after taking two turns across the room came back, and planting himself in front of Edward, thundered:

"'And by what right do you educate Dunwoody's niggers, sir?'

"'She is mine, sir!'

"'Yours, sir? Yours? How did you get a thousand dollars to buy the hussy?'

"'I won her at cards,' Ned replied. Then, appealing to my husband, Ned said, 'You can tell them, Tom. You saw me win her from Mart Dunwoody.'

"'Oh!' exclaimed my husband, as though at last he was beginning to understand the situation, 'it is that girl, is it? Yes, I saw you win her at cards. And I remember now that Mart said something about your attachment for her, but I always thought that it was only a drunken man's fancy.' Then, turning to my father, he explained. 'It was one night at Morton's. The boys had cleaned Mart out, and he, hoping to make up some of his losses, staked a young mulatto wench, which he said his father had given him. Ned was the only one who would take him up, and, as luck would have it, he won, though I afterward heard that it was the first time that he had ever played the game.'

"'It was the first and the last time,' Ned said; and I fancied that he gave this assurance more for mother's peace of mind than to clear his own skirts. 'Since then I have never touched a pack of cards.' Then, turning back and addressing father directly, he added, 'The money, sir, with which I have paid her expenses I saved from your allowance to me.'

"'And by heaven, sir, it is a dastardly return for my generosity!' cried my father, rapping the table with his cane. 'What, sir, I demand to know is, what do you intend doing with this educated nigger?'

"'I love her, sir,' Ned replied, meeting my father's violence with cool determination, 'and I intend to marry—'

"'My God!' cried Governor Huguenin. Startled, we all turned, to find him with blanched face and wild eyes staring at the miniature which father had placed on the table at his elbow on opening the package. 'It cannot be possible! It cannot be possible!' he repeated, almost moaned, as he sank back in his chair. 'This girl—tell me about her!' he asked, hoarsely, turning to my father while he clutched the miniature in his trembling hands. 'Where did Dunwoody get her? Of whom did he buy her? Oh, I must see him at once!' he exclaimed, attempting to rise, only to sink trembling back into his chair. 'I must see him and get her history from his own lips!'

"'My dear sir,' father exclaimed, forgetting his anger in his concern for his friend's evident suffering. 'My dear Governor, compose yourself. It was my servant who found the girl. I can give you her history much better than Dunwoody.'

"'Then, my friend,' Governor Huguenin replied, looking at him in a piteously pleading way, 'in God's name do so! Tell me all you know about her!'

"Father did tell him, my dear, all about the finding of Lydia, just as I have told you. And when mother brought the little whistle that had hung about her neck, Governor Huguenin seized it, and, kissing it, moaned:

"'Oh, my baby! my merry little darling! All these years to be raised and treated as a slave, a negro! Surely God has punished my sin and will allow me to see you once more!' Thus he grieved, fondling the miniature and the little whistle, until finally, becoming more composed, he told us all the sad story.

"It seems, my dear, that when quite young he quarreled and found fault with his wife unjustly, and she, in her indignation, left home, taking their baby girl and her nurse. After searching for some time he traced them to Savannah, to the Pulaski Hotel, and learned that all three—mother, child and nurse—had died of yellow fever. He made all possible investigations, and had never had the slightest reason to doubt until seeing the miniature of Lydia which had come from Boston to Ned in the package. It was so like his wife that it unnerved him, and after hearing her story and seeing the whistle he knew that it could be none other than his daughter. He went down on his knees to Ned, blessing him for his care of her. Ah, my dear, there was not a dry eye among us all, and we did everything in our power to get my father and him off on the next stage going north from Savannah.

"We had one letter announcing their arrival and stating that they had seen Lydia. Then another on the eve of their departure, saying they were bringing her with them. Several weeks passed before they arrived. It seemed like years to us waiting at home. Ah! but when I saw her she was the most beautiful girl I have ever laid my eyes on, and the sweetest. She was delighted to get back home, as she called our house, and to find her father. Never once did she ever blame my parents for the dreadful mistake they made in thinking her a negro, nor for sending her away after the scene on Ned's tenth birthday. The next summer she and Ned were married from her father's home in Florida. It was a beautiful wedding, and I shall never forget the expression on my father's face when he turned, after kissing them both.

"'I never thought to see my boy so happy again,' he murmured, with something like a sob in his voice. Then he added, 'Governor, we have much to be thankful for this day.'

"'We have, indeed,' answered Governor Huguenin, seizing my father's hand in both his own. 'You for possessing so noble a son, and I for my darling's rescue.'

"Thus, my dear, the little girl who had been found by Mammy Maria, and who, on account of her Huguenot coloring, was mistaken for a negro, became my sister Lowe; the L on the little whistle was for Lowe, as she had been given her mother's maiden name. Four years later Ned died, and she put on the disfiguring black cap which she wears to-day. Although she was one of the loveliest women in the state, and famous throughout the South for her wit and beauty, she has remained my brother's widow."

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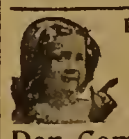

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The purpose of this life, and do not wait
For circumstances to mold or change your fate.
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Vast truth cast out all fear, all prejudice,
All hesitation. Know that you are great,
Great with divinity. So dominate
Environment and enter into bliss.

Love largely and hate nothing. Hold no aim
That does not chord with universal good.
Hear what the voices of the silence say,
All joys are yours if you put forth your claim.
Once let the spiritual laws be understood
Material things must answer and obey.

AN ARMY KITTEN

One evening toward the close of the war, while Union soldiers lay in camp on a hillside near the Staunton River in Virginia, the cry of "Halt! Who goes there?" from a sentry startled every lounger to his feet, and several of the more curious ran to the guard-line to find out what the trouble was. A minute later all knew that the night visitor who had been challenged was no enemy. A little girl, about ten years of age, holding a white kitten in her arms, came forward into the light of the fires, conducted by two soldiers, who had told the sentry to pass her in, and who looked as proud as if they were escorting a queen. The whole regiment gathered, including the colonel himself, to look at the child and hear her tell her story. A very short story it was, scarcely a paragraph, but there was matter enough in it for a full chapter. She lived near by with her father, who was sick and poor; and they were Northerners, she said, and "Union folks." Her mother was dead, and her brother had been killed while fighting in the Federal army. She "wanted to give something," and when the Union soldiers came she thought she would bring her pet kitten and present it to the colonel. The colonel took the little girl in his arms and kissed her, and said he was not a bit ashamed of his weakness. He accepted the kitten with thanks, and its innocent donor was gallantly waited on to her humble home, loaded with contributions.

The white kitten was adopted by the regiment, but continued to be the property and the special pet of the colonel; and when the war was over he took it home with him. Like the white lamb that stayed and fed with the victor after the battle of Antietam, that little creature during its short but stirring army life was a daily inspiration to better feelings and thoughts in the presence of all that is worst—a living flag of truce gleaming among the thunder-clouds of human passion and strife.—Watchman.

BABYLONIAN EXPLORATIONS

From the "Sunday-school Times" and other sources we learn that the last expedition of the University of Pennsylvania to Nippur was by far the most successful of all archaeological explorations of the recent past. Even Dr. Hilprecht himself is exceedingly pleased with the results of the season's work, as the reader may gather from the following extract from his pen: "All three of the expeditions—American, French and German—which have been excavating in northern, central and southern Babylonia, respectively, have had peculiar and valuable results; but the greatest and epoch-making result of this year was obtained by the expedition of the University of Pennsylvania through the discovery of the oldest and foremost Babylonian temple library (destroyed about 2280 B.C.) and the huge pre-Sargonic palace of the fourth pre-Christian millennium, buried under more than seventy feet of debris." It is understood that among the many objects discovered there were many vases, a very large number of clay, shoe-shaped coffins, and nearly twenty thousand inscribed tablets of varying ages. This old sanctuary has already yielded nearly one hundred thousand documents of all sorts, and probably when as fully explored as some other archaeological remains will yield as many more.

It is too early yet to predict the contents of these venerable clay books, written ages upon ages before Abraham left his native land. It will doubtless take many years to decipher these thousands of tablets, for the number of those capable of reading them may be counted upon one's fingers. One of the fragments already read brings out a new king, En-shag-shur-an-a, who reigned about 6500 B.C. Early as this date is, it was not too early for discontent and war, for we read that this king with a long name made war against the ruler of a neighboring country, and defeated him, carrying his treasures as trophies into the temple of Bel.

There was a time when certain Bible critics ridiculed the account given in Gen. xiv. of Chedorlaomer and his allies, who made a campaign from the distant North through Syria and Palestine to the region south of the Dead Sea. Archaeology came to the rescue and followed Sargon I. (about 3800 B.C.) step by step as he marched, nearly a thousand years before the days of Chedorlaomer, along the eastern shores of the Mediterranean Sea. And now again comes another mighty conqueror, Lu-gal-zay-gis-i, who seems "to have been a veritable Alexander." If we can trust the tablets, this ruler, who flourished about 4500 B.C., or fully 700 years before Sargon I., also led his victorious armies from Babylonia to Palestine.—Methodist Review.

A TRUE KNIGHT

He was only four years old, this little knight, who came rollicking down the street, the keen wind blowing his yellow hair and tingling and reddening his cherub-rounded cheeks. With his "free companions" he was as earnestly in pursuit of adventure as ever Sir Nigel Loring was in quest of some "trifling bickering" or "gentle debate."

It was at this opportune moment the lady appeared, infirm with years, muffled from head to foot, making her way with difficulty, for the morning had been stormy and the streets were slippery.

"Out of the way!" shouted the true knight, waving his hands to his boisterous companions; and because the secret of power is always with him who does a noble deed, these older and larger boys obeyed instantly the imperious command, stepping to the right hand and to the left to make way for this lady, whose delicate form was bending before the wind.

Sir Knight next seized upon his small white dog, whose joyful tail, as he scurried on in the lady's path, had dared to wave defiance, like a pennon. Wriggling and squirming, the unwilling captive was held fast in the sturdy young knight's arms, as he himself stepped aside to let the lady pass, with a smile, as he looked into her face, which seemed to say, eloquently:

"Lady, we have cleared your path of peril."

And the lady, lifting her veil, smiled back at the child, and even at the little white dog, and passed on with a prayer in her heart that God might keep so true a knight from all the perilous snares and cruel pitfalls that wait along his pathway—brave little knight!

Frances Bennett Callaway.

EVIL ASSOCIATIONS

"I would give my right hand," said John B. Gough, "if I could forget that which I learned in evil society; if I could tear from my remembrance the scenes which I have witnessed, the transactions that have taken place before me."

We are walking phonographs, and register with a fearful accuracy everything we see, touch, feel, think, experience. "Men become false," says Charles Kingsley, "if they live with liars; cynics if they live with scorners; mean if they live with covetous; affected if they live with the affected, and actually catch the expression of each other's faces."

Every youth should choose a high ideal in the person of some one to whom he can look up and whose character he would like to resemble. The constant struggle to attain the character of our ideal is a wonderful uplift to the mind. It sustains and strengthens it.—Herald and Presbyter.

Lead on, O Lord—Love, Grace and Might—
Lead on through toil and prayer;
So worship shall make labor light,
And hope ennoble care.

—S. J. Stone.

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DURABLE and satisfactory painting is possible if you will be guided by the experience of practical painters which has proven that the only paint which will give permanent satisfaction is *Pure "old Dutch process" White Lead.*

The brands named in margin are genuine.

If any shade or color is required it can be readily obtained by using the National Lead Company's Pure White Lead Tinting Colors.

Pamphlet giving information, and cards showing sample of the color will be mailed free upon application.

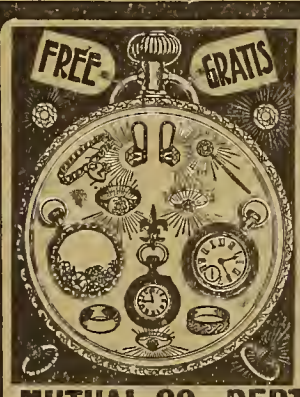
National Lead Co., 100 William Street, New York.

A Year's Subscription FREE

We will give a year's subscription to the WOMAN'S HOME COMPANION FREE to any one who will sell twelve copies to their friends at ten cents each.

WRITE a letter or postal-card to us for 12 copies of the Woman's Home Companion. We send you the 12 copies by mail, post-paid, and you sell them at 10 cents each, after which send us the money, one dollar and twenty cents, and we will then enter your name on our list for a year's subscription free. If you are already a subscriber we extend your subscription one year. Write at once.

THE CROWELL & KIRKPATRICK CO.
Department M, - - SPRINGFIELD, OHIO



6 Prizes Free — Send NO Money

WE WANT TO GIVE YOU Absolutely Free all the six following magnificent premiums: 1 Genuine Solid Gold Shell Stone Set Belcher Birthday Ring, warranted; 1 Chain Bracelet with Lock, warranted; 1 Isis Lucky Stone in Antique Egyptian Stick Pin Setting and 3 Pieces of Sterling Silver Plated Ware, Butter Knife, Sugar Shell and Pickle Fork. All we ask you to do is to SEND US YOUR ADDRESS ON A POSTAL CARD and we will mail you 15 10-cent packages of exquisite Rose Perfume to sell for us. When sold send us the money and we will immediately mail you entirely Free all the six herein described premiums and our special watch offer. Send your address at once before others get in the field. You risk nothing as WE TRUST YOU and Perfume is returnable if not sold

MUTUAL CO., DEPT. N. P. 88 Griswold St., DETROIT, MICH.

1901 "OAKWOOD" $15.95 PAYABLE AFTER EXAMINATION. Send no Money—Just Order

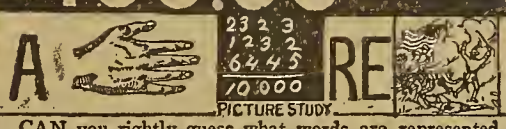
this strictly high-grade 1901 Oakwood. State name, address, express office; whether you want ladies' or gent's; color: black or maroon; and gear wanted; and we will send the Wheel to your express office, C. O. D., subject to examination; compare it with any other wheels offered at twice the price: place it beside "wheels" offered at less money and if you do not find it superior to either at our $15.95 price, you will of course refuse it. The "Oakwood" is a standard wheel and our written, binding guarantee protects you fully. Before purchasing elsewhere make sure of their ability to furnish parts; otherwise in case of breakage your wheel is worthless. We will replace parts any time during the life of the wheel.

DESCRIPTION: Made of best Shelby seamless tubing three crown (latest improved Columbia box crown) nickel-jointed; nickel head; 2½ in. drop, one piece hanger; flush joints throughout. Something entirely new.

IN NO EVENT place your order before having our 1901 Bicycle Catalogue containing valuable hints to the bicycle rider. SENT FREE ON APPLICATION.

CASH BUYERS' UNION, (Inc.) 162 W. Van Buren St., Dept. D-7, Chicago

$100.00 CASH FREE



CAN you rightly guess what words are represented in the above picture? If you can you may win A HANDSOME REWARD. This is a new puzzle and if you are smart, you can, with study, give the correct answer and win some Cash. WE DO NOT WANT ONE CENT OF MONEY WHEN YOU ANSWER THIS STUDY. You have absolutely nothing to pay for your guess, so the cash you receive will be clear gain. Only one answer is allowed you, so Try and Win. This is a free contest and contains no elements of chance and we positively guarantee to pay all patrons Cash for correct solutions. If your answer is correct you will hear from us by return mail. Address, THE CENTURY MEDICINE CO. 18 Spruce St. New York Dept. 244A.

$1000 SALARY A YEAR, PAYABLE WEEKLY BY OLD RELIABLE FIRM, ESTABLISHED 12 YEARS

We need 6 more General Organizers to travel and appoint Local Organizers. Also 6 more State Managers for office work at home. No capital or experience required. Any worthy Man or Woman desiring a good salaried position with No Canvassing to do, should write at once. We allow $8.00 a day for expenses in addition to a straight, out and out, genuine cash salary of $88.83 per month, and share profits on business. As soon as arrangements are completed for you to begin, we send first week's expenses. We want 12 honest, ambitious persons who will appreciate the confidence reposed in them and who desire to be connected with a large concern where they will be well treated and have an opportunity to build up with the house. Address with references and stamp for reply. PRESIDENT MONROE CO., 325 Monon Building, CHICAGO.

FREE ELECTRIC BELT OFFER

WITH TEN DAY'S FREE WEARING TRIAL in your own home, we furnish the genuine and only HEIDELBERG ALTERNATING CURRENT ELECTRIC BELTS to any reader of this paper. No money in advance; very low cost; positive guarantee. COSTS ALMOST NOTHING compared with most all other treatments. Cures when all other electric belts, appliances and remedies fail. QUICK CURE for more than 50 ailments. ONLY SURE CURE for all nervous diseases, weaknesses and disorders. For complete sealed confidential catalogue, cut this ad out and mail to us.
SEARS, ROEBUCK & CO., Chicago.

FAT

How to reduce it
Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. three years ago, and I have not gained an ounce since." Purely vegetable, and harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc.
Hall Chemical Co., Dept B, ST. LOUIS, MO.

SMILES

WHEN FATHER WAS A BOY

Say, when my daddy was a boy he nefer done a thing;
He allers told the truth, an' nefer even owned a sling!
Because his mother didn't want to have him rough an' wild,
An' kep' him in the house ter be a model of a child;
Why, boys then studied all the time, an' nefer stopped to play,
They nefer said they's rest jus' now an' work some other day,
An' none of 'em 'u'd spring a joke an' none of 'em annoy,
An' everything was perfick when my father was a boy.

My father nefer thought of such a thing as skippin' school,
But allers went, an' acted nice, an' nefer broke a rule;
The boys they didn't play base-ball, an' didn't even swear,
An' in their close their mothers couldn't nefer find a tear.
Why, when the cirkis came ter town they didn't cut an' go,
An' so they wasn't punished, for they didn't like a show;
They worked an' worked an' plodded on an' nefer cared for joy—
For everything was perfick when father was a boy. —Life.

MR. SMITH'S WARNING

"Look here, what are you doing there?"

The man who asked the question seemed excited, but the man to whom it was addressed was not disturbed in the least. He was dumping a load of dirt in a vacant lot. This was perfectly apparent to the questioner, too, so that the question was clearly unnecessary as a means of obtaining information. The idea must have impressed itself upon the man at work, for he went on with his task. The other man became more excited at this non-attention, and asked the question again, in a louder tone than before.

Then the workman replied, "I am unloading some dirt, sir."

"But don't you see that sign?" demanded the angry man, pointing to a notice on a post not ten feet away.

"Yes, sir."

"What does it say?"

"It says, 'Place no dirt here by order of John Smith,'" read the man.

"Well, sir," the angry man went on, "I am John Smith, the owner of that lot!"

"Glad to know you, sir."

"None of your impudence, sir, or I will have you arrested! Now, I wish to know why you dump dirt on my lot when there is a notice distinctly forbidding it!"

"I beg your pardon, Mr. Smith, but that notice does not forbid me from dumping dirt there."

"It doesn't, eh? What does it say, then, I'd like to know, sir?"

"Well, Mr. Smith, I've read it to you once, but I will read it again if you wish. It says, 'Place no dirt here by order of John Smith,' and I have placed none there by order of John Smith. I work for a man named Robinson."

At this the man mounted his cart and drove away, leaving Mr. Smith very thoughtful.

The next day the sign was properly punctuated.—Detroit Free Press.

THE PRACTICAL SIDE OF IT

"Yes," said he, "life is so lonely."

"It is lonely sometimes," she answered.

"Wouldn't it be sweet to have a little cottage covered with ivy and honeysuckle and roses?"

"Oh, wouldn't it!"

"And when a fellow comes home tired from business, to have a nice little wife to meet him at the door with a kiss?"

"Y-e-e-s."

"And then the summer nights, the windows open, the sunset just giving light enough in the cozy parlor, and—you—I mean a wife at the piano singing in the gloaming. It would be lovely."

"I—think—it—would—be—nice."

"And then—"

At this point a care-worn woman came around the corner with a pair of twins in a perambulator. A dead silence fell upon the air for a little. Then they changed the subject.—London Titbits.

A BLESSING

"I don't think these here free government seeds is much," said the gentleman with the horny hands and straggling beard.

"You don't?" retorted the gentleman of similar characteristics. "W'y, look here, I raised so many different kinds of new weeds from the last batch of government seeds that enough college professors came to the place to study 'em last summer to pay fer a new barn."—Indianapolis Press.

MARK TWAIN'S POLITICAL SPEECH

While visiting in Elmira, New York, during a political campaign Mark Twain made a short speech, introducing to a Republican meeting General Hawley, of Connecticut. In the course of his remarks Twain said:

"General Hawley is a member of my church in Hartford, and the author of 'Beautiful Snow.' Maybe he will deny that, but I am here only to give him a character from his last place. As a pure citizen I respect him; as a personal friend of years I have the warmest regard for him; as a neighbor whose vegetable-garden adjoins mine—why—why, I watch him. As the author of 'Beautiful Snow' he has added a new pang to winter. He is a square, true man in honest politics, and I must say he occupies a mighty lonesome position. So broad, so bountiful is his character that he never turned a tramp empty-handed from the door, but always gave him a letter of introduction to me. Pure, honest, incorruptible, that is Joe Hawley. Such a man in politics is like a bottle of perfumery in a glue-factory—it may moderate the stench, but it doesn't destroy it. I haven't said any more of him than I should say of myself. Ladies and gentlemen, this is General Hawley!"—St. Paul Globe.

LORD WOLSELEY'S MISTAKE

On one occasion Lord Wolseley's zeal for the welfare of his men got the better of his discretion. Dinner was being served to the soldiers, and orderlies hurried backward and forward with steaming pails of soup. Lord Wolseley stopped one of them. The man was at attention in a moment.

"Remove the lid!"

No sooner said than done.

"Let me taste it!"

"But, plaze yer—"

"Let me taste it, I say!" And taste it he did. "Disgraceful! Tastes like nothing in the world but dish-water!"

"Plaze, yer honor," gasped the man, "and so it is!"—Chicago Chronicle.

THE CHINESE FOR "UNAVAILABLE"

According to the "Religio-Philosophical Journal" this is the way manuscripts are refused in China:

"Illustrious brother of the sun and moon! Look upon thy slave who rolls at thy feet, who kisses the earth before thee, and demands of thy charity permission to speak and live. We have read thy manuscript with delight. By the bones of our ancestors we swear that never have we encountered such a masterpiece. Should we print it his majesty the emperor would order us to take it as a criterion and never again to print anything which was not equal to it. As that would not be possible before ten thousand years, all trembling we return thy manuscript and beg of thee ten thousand pardons. See! My hand is at my feet and I am thy slave!"

APPROPRIATE EPITAPH

Deacon Hackett had just buried his wife, who had been a very shrewish and remarkably lean woman. After long haggling with the village stone-cutter he secured a very small slab at a bargain and ordered the inscription, "Sarah Hackett. Lord, she was thine." But the slab was so narrow that the stone-cutter had to omit the last letter, with this result:

SARAH HACKETT

LORD, SHE WAS THIN

PRESENCE OF MIND

At one of the railway-construction works in the vicinity of the city a Roman Catholic clergyman takes a great interest in the members of his flock who are engaged at the cutting. On Saturday he saw one of them entering a "pub," and hailed him; but Pat simply looked and walked in. Waiting until he came out, the reverend gentleman accosted him thus:

"Pat, didn't you hear me calling?"

"Yes, your ravrince, I did, but—but I had only the price of one!"—Glasgow Evening Times.

A YEARNING

"Don't you long for the dear old days of long ago?" asked the sentimental young woman.

"Indeed I do," answered the man with close-cut hair. "The dear days of long ago are when I borrowed all the money I am now supposed to be paying."—Washington Star.

HIS DEFINITION

One day in the kindergarten little Harry was having a hard time threading his needle. Miss Brown thought the eye of the needle must be too small, to which Harry replied, "Yes, Miss Brown; and I fink the fred is too fat!"—Youth's Companion.

MONEY!

YOU CAN PUT

DOLLARS IN YOUR POCKET

WE OFFER

$500.00 in Gold Free

A	B	C	C	E
G	H	I	K	N
N	O	O	O	O
R	S	T	W	Y

BRAINS COUNT.

We will give **$500.00 in Gold** to *anyone who will arrange* the twenty letters printed at the left *into three names* denoting **three well-known cities** of the **United States.** *Remember, we do not want one cent of your money.* There is only one condition, which will take less than one hour of your time. In making the three names, *the letters can only be used as many times as they appear,* and *no letter can be used which does not appear.* **After you have found** the *three correct names* you will *have used every* letter in the twenty *exactly* as many times as it appears. *We make this liberal offer* to introduce one of the most *charming* and *interesting family* **96 to 144 Column** *monthly* **magazines** to as many families in the United States and Canada as possible, *where it is as yet unknown.* This magazine is *carefully* edited, and *filled* with the *choicest* literary matter that the best authors produce. **Try and Win.** If you will make the *three names* and **send them to us at once,** *who knows* but that you will win the prize? Anyway, *we do not want any money from you,* and a contest like this is *very interesting.* As soon as we receive your answer we will at once notify you. You will then know your solution is correct. We sincerely hope you will try, as *we shall give the $500.00 away anyway.* Do not delay. Write at once. These **Free Gold Cash** awards cost us vast sums of money, but they are a **great big** advertisement for our magazine. We do not care one bit who gets the money. Indeed, we are glad to give the **$500.00 in Gold Free,** because it helps us to interest people in our great magazine. No matter how far away you live from us you have an equal chance in this **Grand Free Gold Distribution.** Distance does not make one bit of difference. We treat all in a just and honorable way, and are too well known as an honest and responsible publishing concern to in any way do a dishonest or questionable act. The **$500.00 in Gold** is given away exactly as represented. If you are smart and clever and will patiently try to make out the names of the **three well-known cities** of the **United States,** and send us your answer **without one cent of money,** we will immediately notify you upon receipt of your solution. You will then know your solution is correct. These are days of keen competition among publishers of magazines, and great sums of money are being given away for advertising purposes. We are a rich publishing house and **do not propose to let any other magazine outrival us.** We have the gold to give away. Have you the brains to get it **free! It does not cost you one penny to try.** It is well worth striving for. Brains are winning more of the golden prizes of life to-day than ever before. Just try and see if you can make out the names of the three cities. Maybe you can do so. With our grand offer, it is well worth trying. If you do not succeed at once, don't get discouraged and drop it. It can be worked out, and some one is bound to give the correct solution. In our past contests where we have given away great sums of cash, we have found that the successful winners were those who were determined they would win and were willing to sit down and patiently study out the puzzle. **Commence right away** on this contest and see if you can make out the names of the three cities. You might get some friend to help you. It is very interesting to study and solve a solution of this character. An alert and clever person will find it a very ingenious **"mix-up"** of letters which can be straightened out and made to spell the names of **three well-known cities** of this great and growing country. Remember, this is not a contest where you are asked to send any money with your answer. We don't want you to send us any money, because we are giving away the **$500.00 in Gold** as a **perfectly free gift,** to create talk and interest in our most charming magazine. Now, if you can make out the names of the three well-known cities, write them in a letter and send to us, being very careful to write your name plainly and giving your full postoffice address. We will immediately notify you. Our advice is to **give this immediate attention.** You don't often have a chance like this to enter without cost a **$500.00 in Gold Free Contest.** Write at once to **METROPOLITAN AND RURAL HOME COMPANY, 20 North William Street, New York City, N. Y.**

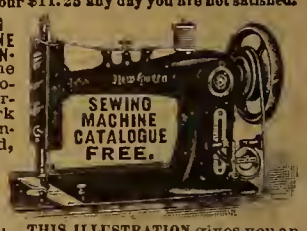
Illustration shows machine closed, to be used as a center table, stand or desk.

SEND NO MONEY,

cut this advertisement out and send to us and we will send you this **OUR HIGH GRADE DROP-HEAD CABINET NEW QUEEN SEWING MACHINE,** by freight, C. O. D., subject to examination. You can examine it at your nearest freight depot, and if found perfectly satisfactory, exactly as represented, equal to the highest grade sewing machines advertised by other houses at $20.00 to $30.00, and as good a machine as you can buy from your dealer at home at $30.00 to $40.00, the greatest bargain you ever saw or heard of, pay your railroad agent and freight charges.

OUR SPECIAL OFFER PRICE $11.25 Give the machine three months' trial in your own home and we will return your $11.25 any day you are not satisfied.

OUR $11.25 NEW QUEEN SEWING MACHINE IS COVERED BY A BINDING 20-YEAR GUARANTEE, is made by one of the best sewing machine makers in America, has every new and up-to-date improvement, high arm, positive four-motion feed, very light running, does any work that can be done on any sewing machine made. It comes in a beautiful solid antique oak, drop head cabinet, as illustrated. **Oak cabinet is beautifully finished, highly polished, elaborately finished throughout.**



AT $11.25 WE FURNISH THIS SEWING MACHINE COMPLETE WITH ALL ACCESSORIES, including 1 quilter, 2 screwdrivers, 6 bobbins, 1 package of needles, 1 cloth guide and screw, 1 oil can filled with oil, and a complete instruction book, which makes everything so plain that **even a child without previous experience can operate the machine at once. FOR 25 CENTS EXTRA,** we furnish, in addition to the regular accessories mentioned, the following **special attachments:** 1 thread cutter, 1 braider, 1 binder, 1 set of plain hemmers, different widths up to ⅝ths of an inch.

THIS ILLUSTRATION gives you an idea of the appearance of the HIGH GRADE, HIGH ARM NEW QUEEN SEWING MACHINE which we furnish at $11.25, in the handsome 5-drawer drop head oak cabinet illustrated.

SEWING MACHINE DEALERS who will order three or more machines at one time will be supplied with the same machine, under another name, and with our name entirely removed, **but the price will be the same,** viz., $11.25, even in hundred lots. **ORDER TODAY. DON'T DELAY. Such an offer was never known before.**

OUR $98.50 UPRIGHT GRAND PIANO IS A WONDER. Shipped on one year's free trial.

Write for free Piano Catalogue. Address your orders plainly to **SEARS, ROEBUCK & CO., CHICAGO, ILL.**

This Cut is 1-2 Actual Size of Watch and Chain.

Watch and Chain

FOR ONE DAY'S WORK.

We send this Nickel-Plated Watch, also a Chain and Charm to Boys and Girls for selling 1½ dozen packages of BLUINE at 10c. each. Send your full address by return mail and we will forward the Bluine, postpaid, and a large Premium List.

No money required. We send the Bluine at our own risk. You go among your neighbors and sell it. Send us the money that you get for it and we send you the Watch, Chain and Charm, prepaid.

This is an American Watch, Nickel-Plated Case, Open Face, Heavy Bevelled Crystal. It is Guaranteed to keep Accurate Time, and with Proper Care should last ten years.

BLUINE CO., Box 392 CONCORD JUNCTION, MASS.

The Old Reliable firm who sell honest goods and give Valuable Premiums.

Cancer

CURED WITH SOOTHING BALMY OILS

Benjamin F. Bye, M. D.

Cancer of the nose, eye, lip, ear, neck, breast, stomach—in fact, all internal or external organs or tissues—cured without knife or burning plasters, but with soothing aromatic oils.

Cancer, Tumor, Piles, Fistula, Eczema, and all skin diseases. Home treatment sent when desired. Cut this out and send it for an illustrated book on the above diseases.

DR. BENJ. F. BYE, P. O. Box 246, North Illinois Street, Indianapolis, Indiana

SELECTIONS

"HULLO!"

When big vessels meet they say
They saloot an' sail away.
Jest the same as you an' me
Lonesome ships upon a sea;
Each one sailin' his own log
For a port behind the fog.
Let your speaking-trumpet blow;
Lift your horn and cry "Hullo!"

Say "Hullo!" and "How d'ye do!"
Other folks are as good as you.
W'en you leave your house of clay,
Wanderin' in the far away,
W'en you travel through the strange
Country t'other side the range,
Then the souls you've cheered will know
Who you be, an' say "Hullo!"

—S. W. Foss.

ANCIENT CATTLE TRADE

THE earliest records of Egypt show that cattle were used as draft-animals and that beef was the favorite meat there eons of time before the founding of the kingdom of Menes.

That our vaunted progress, after all, is but comparative is forced upon our attention in observing that these ancient records depict a butcher cutting up an ox exactly as is done to-day outside of the great slaughtering establishments, with a knife that he sharpened upon a steel that hung at his side, and that the cuts of meat were precisely like ours. They used leather, and they did better tanning than we do; the blood, instead of being processed into fertilizing, was used for cooking purposes; and our Spanish newly made friends never see a better bullfight than was daily purveyed for the delectation of those ancient "sports."

A little later in the world's history we find records of tricks being played in the cattle trade; for do not some historians aver that Jacob exercised undue influence upon the cows of Laban's herds as well as upon the ewes of his flocks? And others tell us that Zaph-u-to—otherwise known as "Joseph the Wise," stock-broker-in-chief for the Pharaoh Apophies, who, of course, were not known in the deal—cornered the cattle as well as the grain of all the country about.

There were Chicagos, too, in those days. Damascus was an old city in the time of Abraham, and the greatest cattle market of the world. Perhaps some day it will be discovered that they refrigerated their beef and canned it.—Self-Culture.

RIGHTEOUS INDIGNATION

The Troy "Times" tells of a group of little children who found a wounded bird with its tail-feathers shot away or plucked out in some manner, and disputed among themselves as to what should be done with the poor little thing. Some of them wanted to take it home and put it in a cage. Others were for releasing it and letting it fly away.

"It can't fly," said one; "it has no tail."

"You don't have to have a tail to fly."

"Yes, you do."

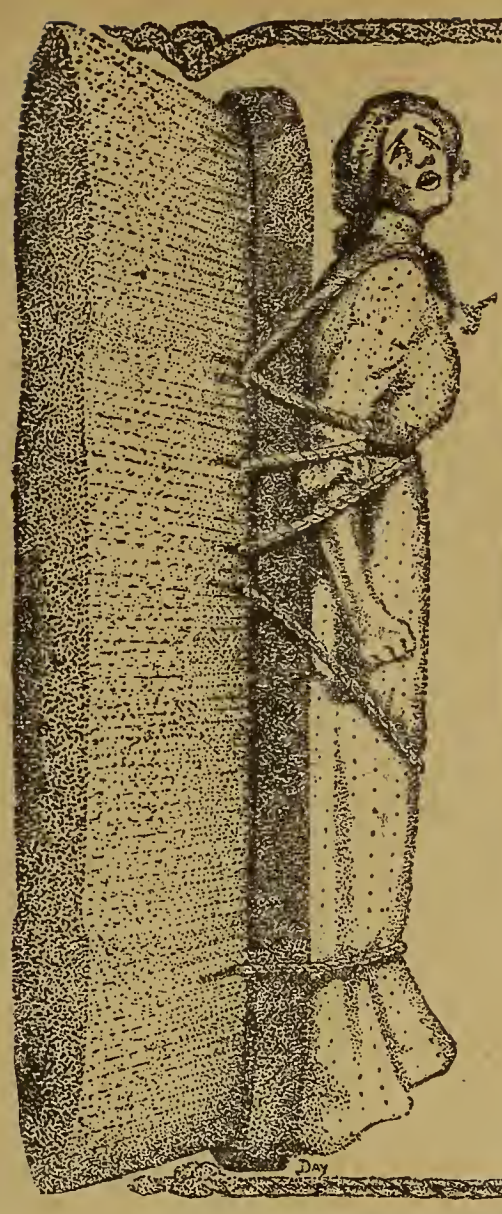
"No, you don't. Angels have no tails, and they can fly."

A little girl who had taken no part in the controversy looked up in surprise and said, "Johnny, aren't you ashamed to talk about God's servants in that way?"

CAT TACTICS

The other day I heard of a cat which had been trained to rattle a certain door when she wished to go out. Her owner, it seems, had set apart for the cat's use a special chair in the sitting-room, and one day inadvertently occupied it while the cat was in the room. Meanwhile the cat roamed restlessly about, trying first one place and then another, until, finding that her mistress still sat stolidly in this special chair, deliberately went to the outer door, rattled it, and when her mistress came to let her out turned round and ran back to the sitting-room, perching herself on the chair with an air of triumphant satisfaction, much to the amazement of her mistress.—"Listener," in Boston Transcript.

LOVE is always building up. It puts some line of beauty on every life it touches. It gives new hope to discouraged ones, new strength to those who are weak, new joys to those who are sorrowing, thus enabling them to go on in life's ways, when without the cheer they must have sank down in their disheartenment. It makes life seem more worth while to every one into whose eyes it looks.—Westminster Teacher.



Bound hand and foot to household drudgery, scrubbing and rubbing day in and day out, doing your cleaning in the hard, old-fashioned way—woman, why do you do it? Break away and use

GOLD DUST Washing Powder

This famous cleanser has proven the emancipation of thousands of other women—why not yours? Let Gold Dust do more of the work, you do more of the play. For greatest economy buy our large package.

THE N. K. FAIRBANK COMPANY
Chicago St. Louis New York Boston Philadelphia Montreal

A CHANCE TO MAKE MONEY

I have herries, grapes and peaches a year old fresh as when picked. I used the California Cold Process. Do not heat or seal the fruit, just put it up cold; keeps perfectly fresh, and costs almost nothing; can put up a bushel in ten minutes. Last year I sold directions to over 120 families in one week; any one will pay a dollar for directions when they see the beautiful samples of fruit. As there are many people poor like myself, I consider it my duty to give my experience to such, and feel confident any one can make one or two hundred dollars round home in a few days. I will mail sample of fruit and full directions to any of your readers for nineteen (19) two-cent stamps, which is only the actual cost of the samples, postage, etc. FRANCIS CASEY, St. Louis, Mo.

BEAUTIFUL DIAMOND RING FREE

Magnificent, flashing Akah diamond, mounted in the famous Tiffany style setting, finished in pure 18k. solid gold. Absolutely warranted for years. Send full name and address. We send postpaid 10 scarf pins to sell at 10c. each. When sold, return us the money and we send at once, above beautiful ring carefully packed in elegant plush lined case. We send large premium list too.
BISMID JEWELRY CO., 29 Park Street, Attleboro, Mass.

Oil Cure for Cancer

Dr. D. M. BYE has discovered a combination of oils that readily cure cancer, catarrh, tumors and malignant skin diseases. He has cured thousands of persons within the last eight years, over one hundred of whom were physicians. Readers having friends afflicted should cut this out and send it to them. Book sent free giving particulars and prices of Oils. Address DR. D. M. BYE, Box 25, Indianapolis, Indiana. This is the old Doctor, the originator of the Oil Cure.

Best Truss Made
WORN NIGHT AND DAY
Absolute comfort, holds steadily. Radical Cure. Latest patented improvements. Illustrated catalogue sent sealed.
G. V. HOUSE MFG. CO., 744 Broadway, N. Y.

I CURE FITS FREE
A Full-Size $1 Treatment of Dr. O. Phelps Brown's Great Remedy for Fits, Epilepsy and all Nervous Diseases. Address J. GIBSON BROWN, 156 Liberty St., Newburgh, N.Y.

A BABY'S OUTFIT
FOR PARTICULARS ADDRESS Krystie's BOX 477 SPRINGFIELD, OHIO

TRUSSES 65c UP Save one-half by writing for our FREE catalogue and prices. 30 kinds. We are manufacturers. Established 21 years. Perfect fit or money back. HENRY SCHROEDER, 462-469 Milwaukee Ave., Chicago.

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FARM SELECTIONS

WITH A PURPOSE

A GOOD many farmers are going to breed mares this coming spring—more than for many years. I wonder how many of them have a clear idea as to what kind of a horse they are trying to produce. The farmer breeds horses for two purposes—for his own use and for the market. If any man prefers to use a scrub and to breed what he wants nobody can offer any reasonable objection. It's his funeral. But the whole breeding fraternity has a right to protest against the breeding of scrubs for market—and about every horse has a market. First, because a scrub stallion interferes with the opportunity for a good one to do a profitable business; and he must be profitable to his owner or he cannot be available to breeders. And, second, because every cheap or scrub horse lowers to some extent the market for a medium grade of horses, which will come no matter how high the breeder aims. Horse-breeding is not an exact science, and there is always a chance of a mediocre animal from a good mating. Enough of the kind will be produced in this way without the use of scrub sires.

Let us have an object in breeding. Let us consider the purpose as carefully as in breeding for milk or for beef (and let us not fail to realize that the stallion can't do it all). A farmer's boy, looking over a horse at a blacksmith-shop, pronounced it a "nothing." He was right; the horse was a common one, useful to the man who bought him cheap, but profitless to the man who raised him. Are not too many of us working on the philanthropic plan of breeding "nothings" for somebody to pick up at mean prices? The way, and the only way, to avoid it is to breed something. Avoid extreme mixtures and work toward a certain purpose.—W. T. B., in National Stockman and Farmer.

POTATO EXPERIENCE

Much has been said and written with a view to ascertain the best way to raise a good crop of potatoes of good size, clean and less liable to rot. In the first place, never plant them on ground made rich by manure and cultivation the previous year, for on such soil, though they grow to large size, they will be scabby, wormy and liable to rot and not good to eat. The best crop I ever raised was on a plot that had been in pasture, the turf turned under, not deep, in September and left until planting-time in May. Then, without plowing, the ground was thoroughly harrowed and the potatoes planted just deep enough to meet the then decayed or rotted turf, light and mellow, applying a large spoonful of phosphate to each hill. The potatoes were of large or more than middling size, and quartered lengthwise, so as to give but a few eyes to each hill. Two rows were left without phosphate, which plainly showed the benefit of phosphate. The cultivation was clean and easy, as there were no weeds, and at harvest there was a large yield in amount, and of large-sized, clean, handsome potatoes, and none ever rotted. There is no use in trying to raise good potatoes of late years by applying stable or barn-yard manure.—E. W., in New England Farmer.

CATALOGUES RECEIVED

J. T. Lovett, Little Silver, N. J. Lovett's Guide to Fruit Culture, listing nursery stock and seeds.

The Barnes Manufacturing Co., Mansfield, Ohio. Illustrated folder of high-grade pumps and cylinders.

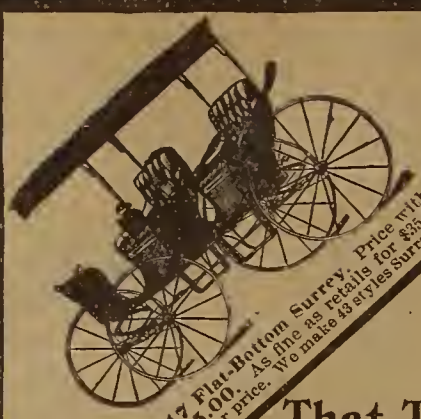
Phoenix Nursery Co., Bloomington, Ill. Price-list of trees, plants, shrubs, roses, bulbs, greenhouse and bedding plants, etc.

F. B. Mills, Rose Hill, N. Y. Catalogue of Mills' Fairview Seed Farms. Among novelties offered is the "Giant Prize," the largest tomato ever introduced.

DeLoach Mill Manufacturing Co., Atlanta, Ga. Handsome illustrated catalogue of high-grade mill machinery, including sawmills, planers, shingle-mills, lath-mills, corn and flour mills, baling-presses, engines and boilers, turbine water-wheels, etc.

Stover Manufacturing Co., Freeport, Illinois. Handsomely illustrated booklet of Samson and Ideal galvanized steel windmills, steel towers, force-pumps, feed-grinders, reservoir and stock tanks, etc. "Irrigation Illustrated," a 64-page pamphlet for those interested in irrigation by windmill.

The Deming Co., Salem, Ohio. Illustrated catalogue of spray-pumps, nozzles and appliances, containing directions for the use of insecticides and fungicides. Free. "Spraying for Profit," Weed's practical handbook of the best methods for suppressing the more common injurious insects and fungous diseases. Price 20 cents.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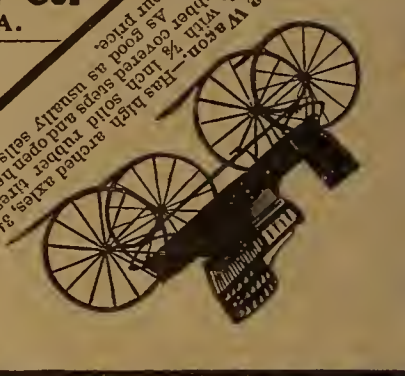
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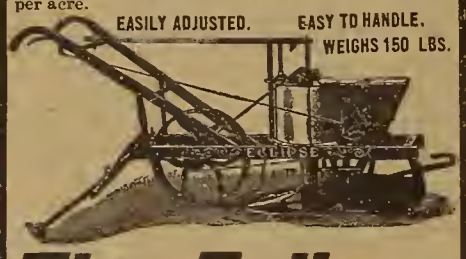

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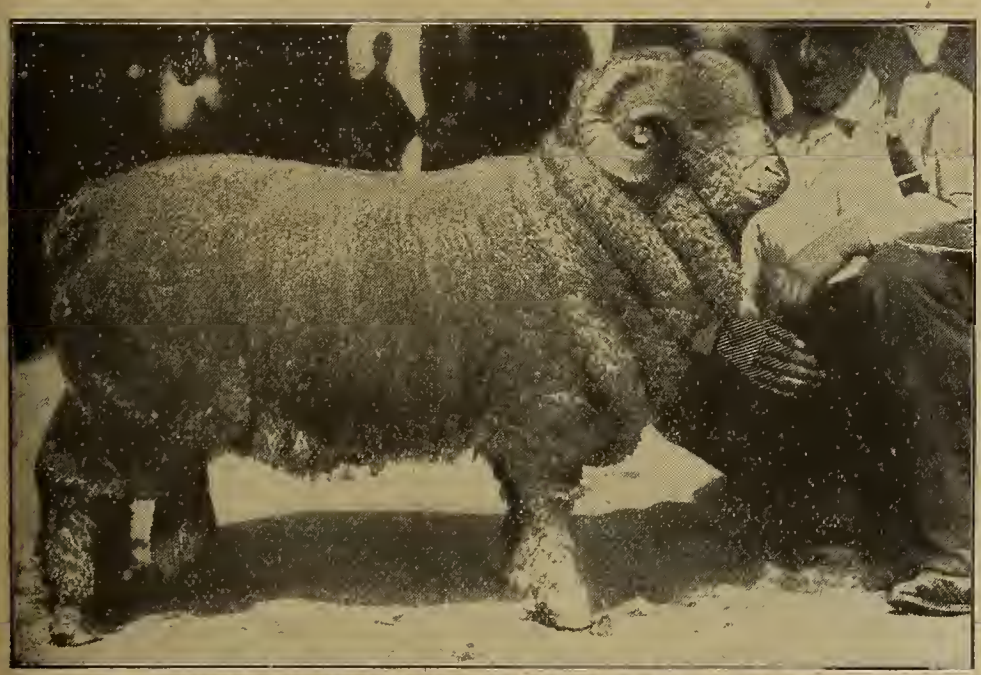

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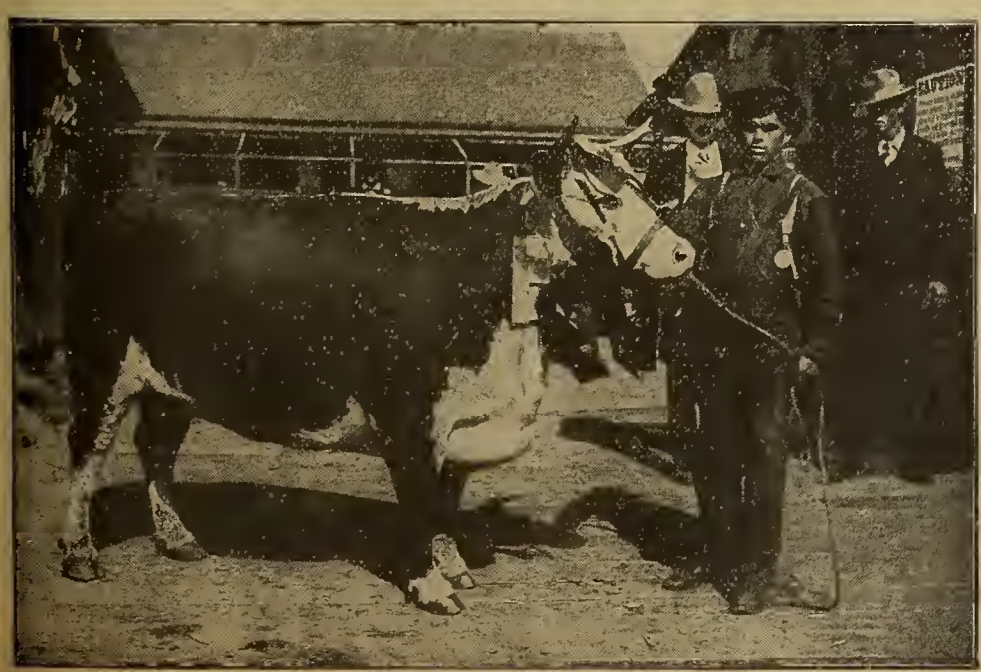

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We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

WITH THE VANGUARD

SPEAKING of the continuity of prosperous conditions "The World's Work" for April says:

"However near or far off may be the time when an absolutely accurate world-wide statement of trade conditions may be made, the vast store of facts now accessible points to an indefinite period of prosperity for the United States. Some of the hopeful large facts are these:

"The volume of currency in active use is the largest we have ever had. The one-dollar and two-dollar bills in circulation have steadily increased from a little more than seventy-six million dollars on December 31, 1895, to more than one hundred and two millions last December; five-dollar bills from two hundred and fifty-seven million dollars to nearly three hundred millions; ten-dollar and twenty-dollar bills from five hundred and twenty million dollars to seven hundred millions. In silver dollars and smaller coins there has been a corresponding increase during the same period—from less than one hundred and twenty-four million dollars to nearly one hundred and sixty millions; and there is more silver in use now than at any preceding time in our history.

"Our export trade, in spite of its recent phenomenal increase, continues to grow in all the most important articles of export. Our shipments to China have been checked, to the disadvantage chiefly of Southern cotton-mills; and the threatened war with Russia is a possible cloud on the map, yet, however, no larger than a man's hand. The war in South Africa has hurt the world's trade seriously in some respects; but for the time it has been an advantage to us because of the supplies bought from us.

"Two definite and permanent gains in our domestic trade are made by the revival of activity in two great sections of the country—the Southern states and the Pacific coast. The increasing Oriental trade will continue to enrich our Pacific states, and more than ever when the Chinese trouble is ended. All the upland and midland South is greatly more prosperous than it ever was before. There is heard a cry of warning about the multiplication of Southern cotton-mills, but they continue to prosper in spite of the temporary cutting off of a part of their trade to China. Of greater importance, perhaps, than the cotton-mills is the increasing production of iron and steel; and of still greater importance to the mass of the people is the remarkable growth in many Southern communities of small industries. And the whole material condition and outlook of the people are changing by reason of the success and the increase in the number of industrial schools there—schools for each race. The day can never return when practically all the money in circulation in the South came from the sale of a single crop, nearly all of which was manufactured elsewhere.

"The prosperity of the South and of the Pacific states is not won at the loss of other parts of the country. Perhaps no region on earth has ever had so rapid a growth in real and lasting wealth production as the 'empire by the Great Lakes' during the decade."

IN AN article in the "Review of Reviews" for April, on the Indian Territory, Colonel Richard J. Hinton says: "Nearly four hundred thousand white and colored Americans are living within the borders of an unorganized territory which belongs in fee simple to another race (but under the government of the United states), with but the barest shadow of a right to remain anywhere upon the scant twenty million acres it contains. Its owners are about sixty-eight thousand persons of more or less Indian blood, with some sixteen thousand colored people, who were once in slavery to them or are the direct progeny of their former chattels. There are one hundred thousand whites—business men with some sort of 'permit to reside;' workmen for Indian landowners; employees of miners or cattlemen who work on or have leased lands from the landowning race. The Americans remaining there have the barest shadow of a legal right, and even now the large majority might be removed by force as trespassers if it were deemed wise or necessary to attempt it. Yet there is, on the whole, no more peaceable community upon this continent."

Summing up the transformation work of the Dawes Commission Colonel Hinton says: "The work already accomplished and to be achieved can be summarized as follows:

"The partial, yet to be final, abolition of the Indian tribes and local governments.

"The segregation of their lands by survey.

"The enrollment of all Indians and freed persons, and the passing upon claims made.

"The survey and allotment to individuals of nearly twenty million acres of land.

"The making of conditions which insure peace, recognize the 'intruder,' and establish law and order.

"The creation of municipal government as the beginning of civil institutions.

"The founding of a system of public schools.

"The prevention of Indian pauperism during a reasonable period of change. The protection, also, of annuity and other funds, and of such property as coal-lands, etc., as shall remain of joint interest, and its disposition for the benefit of all concerned."

DESCRIBING a discovery that opens up a new era in cheese-making "The Breeder's Gazette" says:

"Some months ago Dr. Babcock, of the Wisconsin Agricultural College, announced in a gathering of friends that a new discovery of his would prove of as much benefit to the cheese-making industry as the Babcock milk-test had to the dairy world in general. At the recently held meeting of the Wisconsin Dairymen's Association the doctor described this discovery and presented tangible evidence to the assembled throng. Briefly stated this new discovery is this:

"In 1897, working in company with Professor Russell, Dr. Babcock discovered that normal milk contained an inherent ferment which tends slowly to digest it. This ferment is named galactase. The announcement of this, coming from so eminent an authority as Dr. Babcock, caused a sensation in the scientific world, and work was immediately commenced in many countries along the lines laid down. Dr. Freudenreich, of Berne, Switzerland, has, among the European scientific men, done perhaps the most extended work of research and experiment in connection with this new ferment, and his results bear out in every particular the statements made by Dr. Babcock. The galactase is similar to the pancreatic secretions of the stomach, and the important conclusion reached by Dr. Babcock is that it acts continually on the casein in curd, transforming it by degrees from an indigestible to a digestible substance.

"Formerly it was held that the work of bacteria caused the ripening of cheese. The new discovery entirely upsets that theory. Further experimentation then developed the fact that the action of the galactase did not cease under temperature as low as the freezing-point and even lower, but at the freezing-point the action of cheese-bacteria ceases and in time the bacteria dies. These facts being taken in conjunction it was determined to test the ripening of cheese in refrigerators, and at the meeting alluded to Dr. Babcock presented samples of eight-months-old cheese subjected while ripening to temperatures not higher than forty degrees Fahrenheit. These cheeses were of the finest texture, were free from holes and had no mold on the exterior surfaces. Moreover, the cheese itself was so "broken down" as to be almost in a condition to be spread like butter on ordinary bread. Hundreds of people present at the meeting tested the cheese in all possible ways, and under every test results were the most satisfactory.

"There seems to be no flaw in the process as it has been tested. There is little doubt that the new product, on account of its superior healthfulness, more attractive appearance and immeasurably greater digestibility, will soon take a leading position in the world's trade in cheese. Verily Dr. Babcock has rendered not only his state, but the whole world one more great service, and it is now more pleasing than ever that Wisconsin is to reward him for his splendid achievements while he yet lives to enjoy the renown and the more tangible results accruing from the revolutions he has caused in dairy-work."

IN A valuable report on American farm-labor, as expert agent of the Industrial Commission, Mr. J. R. Dodge says:

"The result of the investigation, which includes the testimony of the most eminent observers and teachers of rural economy, proves conclusively that our farm-laborers, with apparently lower wages than persons of the same intelligence and skill receive in town employment, save more money, have more comforts and fewer anxieties, and have better opportunities to secure homes and social position. Cases are cited as common experiences of laborers who have gone to the towns, spent their little savings, and after years of struggle have returned to the country to recoup themselves. In addition to wages the married laborer has a house free of rent, a garden, fire-wood, pasturage for a cow, and other perquisites. The enterprising laborer usually becomes a tenant and afterward a farm-owner.

"The investigation finds no warrant for fears of land monopoly and the predominance of the tenant class. Most of the assumed increase of tenant-farmers is in the South, where three fourths of a million farm-laborers are in the guise of tenants simply from aversion to personal supervision and control and a desire for independence—farm tenancy only in name. In the North it is shown that the tendency is away from land monopoly; that the farms are becoming smaller every decade; that the "bonanza farms" are breaking up; that large tracts bought on speculation are being subdivided and sold; that while there has been some increase of tenancy it has not arisen from the profit of land-holding for tenant occupancy. Some have rented settled farms to take up fresh, cheap lands in a speculative spirit. Prosperous farmers in advancing years go to town to educate their children and take their ease, leaving the farm in care of a son, who is counted in the census as a tenant. It is found that the trusted farm-laborer often becomes a tenant, and eventually a proprietor. It is shown that tenancy is temporary; that there is no tenant class, and little likelihood of one.

"It is in evidence that some farmers in prosperous circumstances are tiring of land occupancy from inequality of taxation, arising especially from full assessment of all farm property while other wealth is largely exempt; and at the same time there is a tendency toward country life by enterprising and active men of intelligence and progressive views of the possibilities of scientific agriculture."

THE ON-LOOKER

RECENTLY I was invited to dine at the home of a friend who is a successful farmer. It was a nearly ideal country home, provided with all the modern conveniences. As I sat upon the right of the hostess, enjoying the roast and the companionship of the cultured family, my eye fell upon a huge rack on the side of the room filled with ears of yellow corn.

The wife saw the glance, and a half-apology followed. "That is one of John's notions," she said. "He will have his seed-corn stored in this room, and I accept the inevitable."

It was then the host's turn. "Corn has been the foundation of our little success as farmers, and I know that the seed stored in this room has been better than that taken from the crib. It comes up in five days from planting nearly every time."

Then the sense of harmony returned to me. The yellow of the corn and that of the watch-chain about the neck of our hostess seemed a part of each other. One had grown into the other—had made the other.

But how narrow we are! The first impulse is to make sure of vitality in seed-corn, holding this to be a sort of key to our friend's success as a farmer. This good home, these evidences of wealth that we happen to know came from the soil of this farm, all are attributable, for a moment in our thinking, to care in one particular. But what is the fact? Simply that in this storage of the corn we have an index to the character of a man who succeeds. Thoroughness at any cost is a sure trait of the man who clings to a certain room for storage of the precious seed even after wealth has changed the apartment from a modest "living-room" for a working-family to a sumptuous dining-room that has had drawing-rooms, bath-room, etc., built about it. That place proved to be right for storage—the stand of plants was always sure, the plants were usually in evidence a day or two earlier than in neighbors' fields. Profit was sure from such seed. Could we imagine such seed going into poorly prepared soil? Would planting be delayed through lack of energy? Would tillage of a crop from such seed be neglected? Not by a man who gathered the seed-corn and braved wifely criticism by storing it in the proved quarters before frost touched it.

But is not the presence of this corn in this room the index of something more? Prosperity comes part way to many of us, tempting us to try new things and new friends and to let go of the old. Failure is usually due to a yielding to the temptation. We turn our backs on the old. The methods, the habit of thought and of life—yea, even the friends—are let slip for what we fondly believe to be a broader, higher, larger life. We grasp at the new life, we cut loose the anchors, and soon we are adrift. The new plays us false, the old is out of reach, and failure is our lot.

The struggle to maintain appearances is the bane of our age. The object of much effort is to make others believe that we and our possessions have a higher rating than is deserved. Watch that man scattering the manure on the strip of land next the highway. The storms beat from the west, but the paint goes upon the east side of the barn because that side faces the road. The habit grows of viewing everything from the standpoint of the other fellow. Life becomes a question of appearance. The prime question is not how good the crop is, how things really are, but how they appear to others. The man who descends to this is in a pitiable mental plight. He is capable of leaving the heels of his shoes unpolished, of discarding the necktie when a beard would conceal the absence of such dress, of letting any fact be if concealment is possible.

We farmers deal directly with nature, and she is honest. Contact should keep us honest, sincere, truthful. Efforts to maintain appearances cost labor, time, money, character. Spring is a good time to start fair. Let neatness be for neatness'sake—that will drive the old tin cans out of the corner behind the wood-shed. Put paint upon the wood to preserve it, not to hide defects. Keep the lawn clipped because it is neater when clipped. Make the rows in the back field straight. Say the same grace at table Monday morning that you said Sunday morning. Keep closest to friends who knew and valued your parents.

ABOUT RURAL AFFAIRS

Seeds That Never Grow A leaflet entitled "The Man Without the Hoe," issued by W. Altee Burpee & Co., and advertised in their 1901 "Farm Annual," contains Edwin Markham's famous and much-criticized poem, "The Man With the Hoe;" also the three prize poems written in answer to it and published in the New York "Sun" last year, and finally a humorous poem, "The Seeds That Never Grow." The latter makes fun of the quality of the seeds sent out by our big government. It was once read in the House of Representatives by Mr. Shattuc, of Ohio, and our representatives, well recognizing the farcical character of the whole free-seed distribution, enjoyed the entertainment like school-boys, without showing a disposition, however, to try to abolish the big seed humbug. Each of the five verses ends by a reference to the "seeds that never grow." This reminds me that the big Philadelphia firm who issues this leaflet was the same who a few years ago was awarded the contract for furnishing seeds for the free congressional distribution. The firm in its annual makes liberal use of the catch-phrase "Burpee's seeds grow," and will hardly claim that the seeds furnished that year were of low vitality.

Personally I have done my share and written a good many paragraphs for the press and dozens of letters to members of Congress, trying to work up a sentiment in favor of the abolishment of the free-seed distribution, but I have never claimed that the seeds thus furnished were so old that they would not grow. Those that I did plant seldom failed to grow. Possibly there may be people whom a free gift of seeds will induce to make some efforts at garden-making which they would not do otherwise, and by this means the free distribution may do the only good that can be effected from it. My objections were based on the fact that these seeds were of common varieties, which can be purchased at any seed-dealer's for a small sum, and that they have neither educational nor practical value. This year I notice that the seeds sent out by the department have dropped another notch in value. We used to receive named varieties. Even if they were common we knew exactly what varieties we were planting. The lot of seeds which I have just received from Washington are marked on the package as follows: "Onions, a standard variety;" "Lettuce, a standard variety," etc. You may plant them, but if you should like the variety and would wish to plant it again next season you would not know what to call for at your seedsman's; the only thing that I can do in such case is to turn this Pandora's box of seeds over to some one among the friends or neighbors who cares not what he plants, and to whom a radish is a radish and nothing more. I do hope, however, that if the government is bound to remain in the seed-furnishing business it will at least hereafter give the name of the varieties sent out, and not deprive the gift of the very little educational value that might have been attached to it.

A Record of Progress Those among us who can look back upon twenty-five years of farming and garden-making have witnessed a wonderful change in the varieties of grains, vegetables, fruits and flowers in general cultivation. There are but few of the potatoes we used to plant twenty years ago that are now even known by name to younger planters. The change in vegetable varieties has been so rapid that we cannot keep track of it without the help of a careful record. Yet such a record in small compass seems to be missing. It happens quite frequently that I am asked or wish to know how long we have had a certain variety in cultivation or who orignated and introduced it, and I believe a full record of this progress would be interesting and useful. In looking over my seed catalogues again I was pleased to find in Burpee's "Quarter-Century Farm Annual" an attempt to supply such record so far as this particular firm's operations are concerned. It gives an outline of the "quarter-century's advancement in vegetable and flower seeds." I will give a few instances among the vegetables: There is the Stringless Green-Pod snap-bean (1894), which takes the place of the Early Red Valentine; the big Bush Lima (1890), the Dark Stinson beet (1895), Golden Self-Blanching celery (1884), Fordhook White Spine cucumber (1893), California Cream-Butter lettuce (1888), Emerald Gem melon (1886), Ruby King pepper (1884), Golden Upright pepper (1887), Chinese Giant pepper (1900), Matchless tomato (1889), Fordhook Fancy tomato (1898), Quarter-Century tomato (1900), Gibraltar onion (1895), etc. What I do miss in this record, however, is the names of the originators of the new things, and places and dates of their origination. It seems to me that the names of the people to whose efforts or care the origination or preservation of such valuable new things is due deserve themselves to be preserved in the records of our horticulture. Undoubtedly a record of the novelties introduced by them has been kept and preserved in the offices of our seedsmen, and I do wish they would all follow Mr. Burpee's example and publish a similar record. I am greatly tempted, indeed, to undertake the gathering of material for a full record of such introductions, with the names of the originators and a brief history of each of these varieties, and I will do it if I can enlist the assistance for such purpose of the seedsmen and the originators themselves. A record of progress of this kind would be an everlasting monument to the enterprise and push of all our seedsmen, not only of the big firms, the Vicks, Hendersons, Harrises, and Thorburns, of New York; the Burpees, Maules, Dreers, Johnson & Stokes, and Landreths, etc., of Pennsylvania; the Rawsons, Farquhars, and Gregorys, of Massachusetts; the Ferrys, of Michigan; the Childs, of New Jersey; the Buckbees, of Illinois; the Salzers, of Wisconsin, and others, all of whom have hunted the universe over for new and improved vegetables and flowers, but also to a host of concerns whose efforts have been especially exerted in special lines, like the Livingstons, of Ohio, in tomatoes, and the Fords, of Ohio. The record would bring to our full appreciation the fact that the American seedsmen have been the prime movers and pushers in the progress which has been made in these lines, and that the general public is under great obligation to them for the wonderful achievement. Don't wonder, therefore, that I speak so many good words for our seedsmen all over the country.

Reliable Advertisers No respectable agricultural paper of the present day sells advertising space to any individual or firm suspected of having fraudulent designs on the pockets of the reader. We may take that for granted, and also that most of them watch the advertisers and their standing very closely. For that reason people who answer such advertisments are hardly ever in danger of being swindled outright out of their money. I have the question before me, "Is a certain advertising seedsman reliable?" I will say this, that I do not know one of the twenty or more seed firms whose advertisements I find regularly in the papers who do not seem to try hard to furnish to their customers the very best seeds and varieties obtainable. Whether one's seeds are better than another's you can find out only by trial. In a general way you can easily judge the advertiser by the whole tone and get-up of his catalogue. Fraudulent concerns usually present you with poor paper and poor print, and make up for it in most fulsome promises and exaggerated statements. The seed trade in its general run of catalogues appears in very favorable light. Wherever you find a chaste and tasty cover, good paper, clear print and just as clear photo-engravings of the advertiser's offices, works, buildings, grounds, seed products, etc., and colored plates of real artistic merit, besides a lot of valuable practical information such as almost all seed catalogues contain, you will not have need to ask the question, "Is this advertiser reliable?"

Pan-American Literature The principle stated in the preceding paragraph applies with equal force to the literature sent out by the Pan-American Exposition Company. Some of these pamphlets are models of their kind and worthy of being found on the parlor table of every American home. There is true artistic merit in the numerous illustrations, and great taste and undoubted orginality in their display and arrangement. This literature, with large plan of the Exposition grounds, is to be had for the asking, and every reader who intends to visit Buffalo this summer should not fail to apply at once for copies to the Pan-American Exposition, Publicity Department, Buffalo, New York.

T. GREINER.

SALIENT FARM NOTES

Working Forty Acres "Young Farmer" asks if it is possible for him to plow forty acres of land, plant it to corn and properly cultivate it with three medium-sized common horses. He will have some wheat and hay to harvest, not many chores to attend to, and his wife takes care of the garden. Forty acres make a rather large tract for one man to manage and do thorough work, but if the soil works fairly easy he can do it. He should plow ten acres, then harrow and plant at once; then plow ten more acres, and finish as he goes along. By the time he has the last planted the first planting will be ready to begin working. He must expect to be delayed more or less by rain-storms, and if it should happen that these are frequent his last plantings will be somewhat late. In that case I would plant an early-maturing variety on the last ten acres. If the season is favorable he will be able to keep the soil in good condition through the growing season if he sticks closely to business. When the land was new and filled with humus and fertility one man could easily manage forty acres of corn, but it is too much now. Twenty-five acres are enough for one good team.

Green Food for Swine The matter of summer pasturage or a supply of early green food for hogs comes up every spring. I have letters from nearly a dozen tenant-farmers asking what is best to sow or plant for pasturage or early green food for their pigs. Here is a sample of these inquiries:

"I moved to this farm this spring, and find that there is no pasture of any sort for my pigs. You know that pigs will not do well without some green feed in summer, and as I have about thirty I must grow something for them that will be ready to feed them early. How would cow-peas do?"

Cow-peas are excellent for many purposes, but not for early green food for pigs. If I were situated as this farmer is I would sow half an acre to mixed oats and corn. Plow the ground, sow immediately and then harrow thoroughly. I would then prepare another half-acre alongside of the first and sow it to rape; then about the middle of June or a little later I would plant half an acre to Evergreen sweet-corn. I would have all of these crops side by side and as close to the pig-pen as possible. As soon as the oats are a foot high I would begin mowing them for the pigs, feeding them a little every morning and evening. By the time the oats are gone the rape will be ready. Rape will grow a second crop if the plants are not cut too low, but I have always slashed it off close, because with me it has always proved an uncertain quantity. By the time the rape is fed out the sweet-corn will be ready for use. After the half-acre of oats are fed out I would immediately plow the patch over, harrow it well and plant it to sweet-corn; this will furnish green food for the early fall months. If I expected to remain on the farm another year I would seed half an acre to rye in the fall for green feed next year. Pigs will not eat much of the rye after it gets twelve or fifteen inches high, but they chew it and get all the sap out of it, and it seems to do them lots of good. After all, there is no green feed for pigs better than sweet-corn. They like it from the time it is a foot high until it is dried up. Plant lots of it for them if you have no pasture; it will pay.

Corn-planting Last spring was an exceptionally good one for corn-planting. The soil on most farms plowed well and was easily pulverized, and all conditions necessary for a good stand were present throughout the season, yet in a drive of only six miles I saw five fields in which the stand was poor. In one case the land had been plowed too early and had been beaten down by rain before it was planted. Going into a hard, cold soil much of the seed had rotted, while the rest came up very unevenly. The principal cause of the poor stand in the other four fields was weak seed. Each of the owners of those fields had picked the seed out of the crib a few days before planting, and without a doubt it had been weakened through being heated. The yield in those five fields was reduced at least ten bushels to the acre. There was no necessity for this loss. It was caused by simple neglect to do what every careful farmer in the country does every year. If you failed to select and care for your seed-corn last fall it will pay ten times over to give some one who has good, sound seed one dollar a bushel for all you need. FRED GRUNDY.

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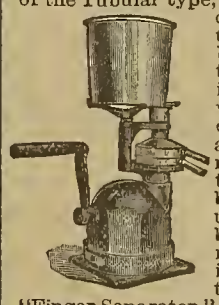

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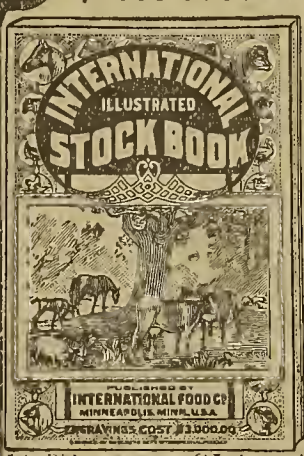

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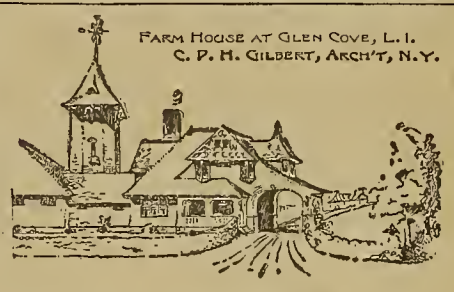

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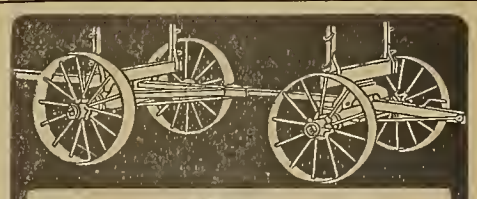

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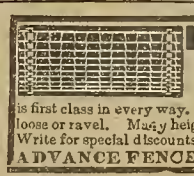

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OUR FARM

FARM THEORY AND PRACTICE

Early Lambs.—The price of wool has gone down to a discouraging figure. There has been constant decline for a year, and many flock-masters are discouraged. That there will be some reduction in size of flocks is sure. Many small stockmen throughout the country could arrange to get some sure money from small flocks by securing mutton-lambs for the winter and spring market. It would mean personal work and attention throughout the winter, but it is a kind of work that I have found pleasant, and there is little profit in farming without some hard work, anyway.

If lambs are wanted early the planning must be done now. Ewes with late lambs cannot be gotten ready for a crop of winter lambs. The Dorset is an exception, but ewes of this breed are not available to all. The first consideration in securing earliness is to have the ewes strong and healthy, and that means that this year's lambs must not stay long with them, and that grain be fed to increase vitality. Ewes thus treated and then yarded at night with a Dorset buck can be made to drop winter lambs readily.

Spring and Fall Colts.—I believe that the practice of having colts from farm mares foaled in the fall rather than the spring would increase if proper care were given the fall colts. It is the rule to have them come in the spring when they are most in the way. There is constant danger from injury in the hard spring work, and there is danger of overheated milk throughout the summer if the dams are doing the work of the farm. Both dam and colt can be taken through the winter in good shape if the right kind of food and care are given. Good clover hay, free from dust, with grain chop and a small amount of roots or small potatoes daily will make plenty of milk, and when the mother has been hardened up a little in the spring she is in far better shape to do the summer's work than she would be with a suckling colt. A colt thus treated is ready to make full growth on the first grass, and instead of being at two and one half years no better than the two-year-old, as is too often the case, it will be about as good as the three-year-old. The fall colt often fails to give satisfaction simply because not given a chance.

Buying Milk-cows.—Dairymen near large cities must buy their cows. They have neither land nor feed to spare for young stock. But the average farmer can produce a good milk-cow more cheaply than he can buy one. It is difficult to buy a really good cow, because most people owning such cows will not part with them. Probably half the cows upon the market have no particular value, because they cannot yield a satisfactory net profit from their feed and care. The price of veal-calves is usually so out of proportion to the price of yearlings that the temptation is to sell the calves and to trust to buying cows when needed; but a heifer calf from a first-class cow and good sire may easily be worth more to the owner than the average price of yearlings or even of older cattle. We are slow to realize the true comparative value of a really good cow. As a money-making investment one cow on the farm may easily be worth four times as much as another cow in the same herd. Both eat about the same and take about the same care. It does not require a wide difference in the products of the two cows to make a big difference in the values.

Strengthening the Straw.—Repeatedly the question comes, "Can I apply fertilizer that will keep oats and wheat from lodging badly?" It would seem that one should be able to do this, but such is not always the case. Stable manure or any other material strong in nitrogen increases the tendency of grain to go down before maturity, and potash and acid phosphates help to strengthen the straw, but applications of them on very rich land do not serve very successfully in preventing lodging. Where the nitrogen is in excess, as it is when straw makes too rank a growth, the plants appear to take up an undue amount regardless of any so-called "balancing" of the plant-food in the soil by the addition of the potash. Lime and acid phosphates release potash in the ground, and the use of any of these materials is to be recommended as an experiment, but only as an experiment, and not on an extensive scale. It is my experience that land which is very rich in nitrogen can be used to best advantage in growing such a crop as corn, which is a gross feeder, and after the corn small grain will be less apt to lodge.

Buying Fertilizer.—We farmers are responsible in part for the relatively high prices that we pay for some of our supplies. Some big manufacturers wanted to do a cash business, and their prices were reduced very materially in order to secure buyers. They could afford to make low prices because there would be no bad debts and no costs for collection. They would get their money at once, and it would be ready for the purchase of more raw materials. It comes within my personal knowledge, however, that they have failed to retain agents that were greatly pleased with their prices simply because the farmers could not be induced to buy for cash, no matter how great the reduction in price. How can we expect to get our supplies at bottom prices so long as we will not meet the requirements? It must be thoroughly discouraging to those who are willing to sell us goods at lowest possible prices for cash when we turn away and pay ten to twenty per cent more for goods bought on time. This is an old story, but truly we must mend our ways. Encourage the man who sells low for cash. His methods mean a chance of profit for the farmer. We can drive all business upon a credit basis, but we pay dearly for it. David.

RESTORING OATS YIELDS

Oats seem to be superior to variations in soil; at least good crops are grown on all kinds of soils. For this reason, possibly, the manuring or fertilizing of oats has been generally neglected, yet few field crops will better repay intelligent manuring. It should be understood here that manuring and fertilizing refer to the same thing in this article—the improvement of crops by applying plant-food, whether in the form of farmyard manure or commercial or chemical fertilizers.

Practically in all sections where farming has been carried on for a long time the oats crop has shown signs of starvation. With any crop where old-time yields cannot be had the trouble nine times out of ten is due to lack of proper plant-food. Fertilizers are widely used for wheat, and the oats crop needs to the acre quite as much plant-food as wheat, but in common farm practice very little fertilizer is used for oats. To illustrate, a fair yield to the acre in grain, straw, etc., of the two crops is as follows:

	WHEAT Pounds	OATS Pounds
Grain	2,100	1,800
Straw	2,700	2,900
Chaff, etc.	300	275
	5,100	4,975

The plant-food ingredients in the above crops are as follows:

	WHEAT Pounds	OATS Pounds
Nitrogen	59	55
Potash	31	62
Phosphoric acid	24	22
	114	139

Thus it will be seen that an acre of oats really requires more plant-food than the same area in wheat, and it is easily understood the common practice of growing oats without fertilizer quickly exhausts the soil—a fact well proved by experience. Another point of importance is the fact that although both wheat and oats are "grains," the plant-food needs of the two are very different. This is shown by the above table, sixty bushels of oats taking from the soil in grain, straw, etc., about the same nitrogen and phosphoric acid needed to produce a crop of thirty-five bushels of wheat, but fully twice the potash.

In the Middle West oats are frequently rotated with corn, and it has been found that these two crops work most rapidly in depleting the soil of the stores of available plant-food existing there as a natural condition. The oats crop fails first, as corn has an extensive root system and a longer period of growth, and consequently has a greater foraging power. Of course, it is only a question of time when corn commences to fail. Even on soils still producing good corn the oats should be fertilized, as a poor crop means a year of time lost and a soil seriously injured mechanically, and a well-assorted supply of weed-seeds ready for the following year. In fact, the oats-corn rotation should make way for a rotation of one year or two years corn, one year oats and the following year clover. Even with this rotation the mineral fertilizers must be used freely. By mineral fertilizers is meant potash and phosphoric-acid fertilizers. Rotation mainly is used to secure a supply of cheap nitrogen fertilizer through growing a crop of clover, the roots and stubble of which contain a very considerable quantity of nitrogen taken chiefly from the air. The action of clovers in enriching a soil in nitrogen plant-food is now well understood. At the same time clover can do nothing toward increasing the supply of potash and phosphates in the soil.

In the Middle West the supply of soil-nitrogen is usually very large as compared with potash and phosphates, consequently these two latter fertilizer ingredients are the first to be exhausted. There are many brands of commercial fertilizers on the market designed specially for oats. Farmers should pay heed to the analyses of these brands before buying. More or less closely the analysis should show a proportion of potash and phosphoric acid having some bearing on the needs of the crop, as shown by the table given herewith.

Bryan Tyson.

THE OHIO STATE DAIRY-SCHOOL

The dairy-school of the agricultural department at the Ohio State University is the most practical course and the most interesting to the onlooker of all the departments of the university.

The dairy-laboratory is on the ground floor of Townshend Hall, which is a large, modern building valued at $100,000, and is situated on the west side of the campus. The dairy-laboratories occupy an area of six thousand square feet, and besides there are the lecture and reading rooms. The laboratory is divided into the creamery-room, the pasteurizing-room, the cheese-laboratory and the live-stock judging-room.

The university has a dairy of its own, and runs a wagon through the city, and the milk is of such a quality as to command a higher price than other milk sold in the city. In the pastuerizing-room this milk is bottled. For doing this the students are supplied with separators, bottling-apparatus and a steam sterilizing-oven. The milk for use in the other laboratories is shipped from the country.

In the creamery-room separators, churns and butter-workers for teaching butter-making also serve to make the students familiar with the kind of machinery they will use in their profession.

Vats and apparatus for making and pressing cheese are supplied in the cheese-laboratory.

The power-house and the engineering-laboratory afford a chance for the study of large power-machinery, such as boilers, pumps and steam-engines.

The dairy course is one of lectures and laboratory-work. The lectures give instruction on the constitution of milk, manufacture of butter, cheese and bottled products, care of steam-engines and boilers. The lectures on dairy-farming teach the history, adaptation, care and management of different breeds of cattle; the students are taught to judge animals for dairy purposes. Lectures are also on foodstuffs and their relation to animals, on diseases of cattle, the chemistry of milk, butter and cheese and on bacteriology. The lectures and laboratory-work in the power-house teach the students the care of steam-engines and give them experience in the operation of the steam plant.

The laboratory-work consists in cheese-making—selecting the milk, using the test and making the Cheddar, brick, Edam and Swiss cheese. The cream-separators are studied by taking them apart and putting them together again, thus learning their mechanism. In butter-making the students learn to ripen the cream properly, to churn it exhaustively, to work it and put it in neat, marketable packages. The testing of milk, butter, cheese, skim-milk, buttermilk and whey is a most essential part of the course. Milk-bottling is also learned.

One week is spent by each student in the different laboratories. After a ten-weeks' course he is prepared to assume a responsible and well-paying position in a creamery or some large dairy-farm. Some proprietors of creameries and dairies, even, are among the students taking the course.

This school represents one of the needs of the present in this country. Dairying has become a profession and requires a technical training. In Ohio alone $500,000,000 are invested in the dairy business, and this shows that a knowledge in the best use of the investment is now necessary to the economic welfare of the country.

The school closed March 15th, having the largest graduating-class it has ever had. Fifty students creditably finished the course, and nearly all of that number have accepted good positions and are widely scattered among the dairies and creameries of the country. Ethel S. Dean.

OUR BIRD FRIENDS

Our summer birds are here again with their merry songs. Robins, meadow-larks, thrushes, blackbirds and a host of others are chirping and twittering among the trees and along the hedges, while off up the field I hear an occasional call from bob-white. The hunters did not get quite all of the little brown-coated fellows last fall, though hundreds did fall to the crack of their shot-guns. I have often wondered what would become of the farmer and orchardist if the birds—our best and most effective insecticides—were all destroyed. Nothing ruffles my temper more than to see half a dozen boys armed with cheap rifles and air-guns prowling along the hedges shooting our birds, especially at this season of the year, when they are nesting and easily approached. I have watched a single robin hopping about on the lawn and by actual count pick up and eat sixteen cutworms in ten minutes' time. I have seen a blackbird walking about among the short blue-grass find and eat nearly a dozen worms in a very few minutes. These birds have even sharper eyes than young chickens, and they will find dozens of worms and grubs on a grass-patch that is overrun by the latter every day. Let us protect the birds by every means at our command—put up houses for the wrens and martins and protect them from the cats, and stop the shooting of the quails and meadow-larks. We need our birds. Fred Grundy.

SPRAYING FRUIT-BLOOM

Pollination of fruit-blossoms is now very well understood by farmers and fruit-growers. Nature, however, is so careful in her workings that not everybody can get a glimpse of just how she accomplishes this. A pollen-grain when it lodges upon a stigma is not swallowed up, so to say, but is like a seed falling upon a well-prepared seed-bed. It grows, and sends its rootlets down and through the long stem of the pistil till they reach the ovaries, or seed-house, when we may say the act of fertilization is completed.

A grain of pollen may be made to grow in sweetened water, similarly as a culture of bacilli is made. By adding Bordeaux or Paris green to the sugar solution it may be determined whether such chemicals interfere with the growth of the pollen-grains, and whether spraying of the fruit-blossoms is detrimental to the setting of fruit. Accordingly, experiments have been made at the New York Experiment Station which are not yet published. Two-per-cent regular Bordeaux mixture was added to the sugar solution, and was found sufficient to prevent the growth of pollen-grains. Paris green had a similar effect. From this it would seem, should we spray either of these mixtures upon fruit-bloom, pollen-grains could not grow and fructification would be prevented.

So far the theory; what are the practical results? Professor Beach, of Geneva, says, "There seems to be an unexplainable craze among fruit-growers in certain localities to spray their fruit-trees while they are in bloom, which has induced us to undertake a new series of experiments to prove or disprove any theories these fruit-growers may have hatched out." Four apple orchards were therefore regularly sprayed, two of them also while in bloom. There was very much less fruit on the trees that had been sprayed while in bloom. Some single trees were partly sprayed, one half, or one side, while in bloom, the other side receiving the regular sprayings only. The effect of these sprayings told a wonderful story. The sides that had been sprayed while in bloom were very nearly destitute of fruit; the others were so loaded that many branches broke down under the weight of apples.

The detrimental effect of such untimely sprayings is not always so plainly visible; the reason for this is quite apparent. All blossoms of a fruit-tree do not expand their petals at one time. By observing, the fruit-grower can easily find out—speaking of apple-blossoms—when the central blossom of a cluster has already opened five or six around it are as yet closed. A week's time, or even more, according to the weather, may elapse between the opening of the first and that of the last blossoms. If we spray while the tree is in full bloom, and then only, some

blossoms may already have become fertilized, and are beyond the danger of being injured; other blossoms may not be open as yet, and thus are safe from being injured. The result may show a fair amount of fruit notwithstanding the spraying. But should we spray a certain tree every day or two we would then be likely to hit nearly every flower and effectually prevent the setting of fruit.

Friedemann Greiner.

EASTERN NEW YORK HORTICULTURAL SOCIETY

SELECTIONS FROM ADDRESSES AND QUESTION-BOX

What varieties of peaches are the best for New York? Mr. Barnes: Champion is the best with me, on the Hudson River. Elberta is a standard. The market now calls for yellow fruit, but the red varieties are the most hardy.

What is the best variety of asparagus? Mr. Allen: Palmetto is the best. Cut only part of the bed at one time, do not cut it too late, and stop when the early peas come.

What is the most desirable flowering vine? Mr. Dwyer: Hall's Japan honeysuckle. It is nearly an evergreen. It is good for porches, walls and stonework. It is hardy and cheap. Golden Vein is also desirable.

What is the best way to cope with drought, cultivation or irrigation? Mr. Taber: Do all you can by shallow cultivation, keeping a dust mulch around crops like berries. It will pay to mulch and irrigate the most profitable crops. In an experiment on my farm in different methods of irrigation, mulching between the rows and applying water on the mulch was most economical when results were taken into consideration. Mr. Dwyer: Cultivation is within the reach of all; irrigation is not. My plan is to plant strawberries in rows four feet apart, and make a row of plants about twenty inches wide. Place a mulch close to the plants, then cultivate very frequently the space not covered with the mulch.

What is the best cherry for home use and for market? Mr. G. T. Powell: Montmorency is the best sour cherry we have for all purposes.

Which is the best blackberry for market? Mr. Barnes preferred the Minnewaski for the Hudson River valley.

What is the best blackcap raspberry? Mr. Barnes: Munger is the best we have. The berries often exceed an inch in diameter. It is a late berry, and requires high culture. Mr. Dwyer liked the Cumberland the best, and said it was a large berry, good flavor, healthy, and a strong grower.

How shall we prune the Columbian raspberry? Mr. Dwyer: Prune the pink varieties by cutting back the leader to five feet, and shorten the laterals to eighteen inches.

Mr. W. H. Blodget, of Massachusetts, made an address on "Our Markets." He first spoke of what refrigeration has done in making prices more uniform. Perishable goods are kept until there is a demand for them. It is the poor and medium which keep prices down. The producers are to blame, to a large extent, for the low prices. The commission man or dealer cannot sell goods of poor quality for high prices. Pains taken in grading and packing fruit always pay. I have sold pears for two dollars a bushel when they were selected, wrapped in paper and packed in bushel boxes. Ordinary pears were selling for less than half the amount. Establish a brand of goods, mark it, and then be sure to keep it up to a standard. In cities I like the auction plan of selling perishable goods, and I think it has usually given good satisfaction. I advise sending goods to members of the National League of Commission Merchants, and you will be more likely to find reliable men. I do not think growers near cities should peddle their produce, as they create competition among themselves and do not keep prices up. In villages I think it would pay the growers to combine and establish a store.

W. H. Jenkins.

DEHORNING CALVES

I always use caustic potash for dehorning calves. I first clip off the hair around the horn, then grease the skin where the hair is cut off, so that if the caustic potash should touch the skin it will not make the head sore. I wet the caustic and rub it quite thickly over the little horn. If within a few days the horn has not sunk into the head a little I repeat the operation, which is very seldom necessary. I think this a much more humane way of treating the little animals than the one described on page 22 of the March 1st Farm and Fireside. H. E. D.

COMMON RED CLOVER

Clover will not only give us a crop of hay, but a crop of seed, and leave in the soil a crop of roots worth as much as the tops for a fertilizer. By feeding the hay and returning the manure to the soil we have in a good clover crop and the sod enough phosphoric acid for a crop of corn and wheat to follow. Dr. Kedzie claims enough nitrogen for four average crops, and potash for more than six average crops of wheat. The roots of the clover are worth as much as or more than the tops for fertilizing. They weigh as much as the tops. This has been demonstrated by Lawes, by Voelcker, by Roberts and by several of our stations. If, then, land is run down so it will not grow wheat and corn profitably, is it wise to jump at the conclusion that clover will not do any good on such land? It is very doubtful whether we have any more land that is clover-sick than wheat-sick. The clover-sick land of Scotland seems to have a deficiency of soluble potash, and where potash is applied even the worst cases of that clover-sick land have produced clover. Sandy lands that dry out quickly, clay lands that pack and are destitute of humus, black peaty lands that surface-dry quickly are all hard lands to get a stand of clover on.

I once tried to get a stand of clover on a clay lot on which tobacco or corn had been grown for forty-odd years, and no man had ever seen a pound of manure or fertilizer used on it. It was tobacco-sick and corn-sick. But I plowed in the fall and top-dressed it with manure hauled twelve miles from the stock-yards. As soon in the spring as it was dry enough to harrow and cultivate I worked it twice, drilled in six pecks of oats and sowed six quarts of medium red clover and two quarts of timothy-seed to each acre, and never have seen a better stand of clover. On a neighbor's lot he had tried clover sown on wheat, and told me it was a waste of seed to sow clover. My experience leads me to conclude that land must be either naturally well supplied with fertility and moisture or must be provided these two factors or clover will fail. Nor do I think one kind of clover is any better suited to poor land than another. If a piece of land is so poor that clover will not grow on it after it has been fall-plowed and top-dressed with stable manure it is poorer than any I ever saw.

Common red clover is so valuable a crop for feed and for cleaning and improving the soil that we can afford to sow it often and to prepare the seed-bed well, and on very thin lands to top-dress with stable manure. Even a very light dressing of manure well distributed seems to insure a good catch of clover. If on such land the crop is all turned under in July for wheat, with which two hundred or three hundred pounds of commercial fertilizer to the acre have been used, clover will start well the following years, under judicious farming. We cannot tell whether the light top-dressing of stable manure furnished the needed humus and fertilizer or the bacteria, or both—possibly both. Our test of fall-plowing on a worn-out, corn-sick and tobacco-sick clay hillside shows how easily and surely such land may be made congenial to clover. If I had land that I could not get a good catch of clover by sowing on wheat or barley in the spring I would fall-plow it, top-dress lightly with stable manure and sow a bushel of spring barley and six quarts of medium red clover-seed. Putting in the barley and clover with a drill would cover both more evenly if the land was in good order and had been rolled before the drill. The barley would mature earlier than oats, rye or wheat and come off before hot, dry weather. Any weeds that might start would be cut before maturing seed, thus leaving a clean stubble. In an average season I would clip the clover again in August or early September, before any weeds would mature. The mulch thus left on the ground would help to retain moisture and add to fertility. It is well to remember that the leaves of clover that fall on the soil carry a considerable amount of sulphuric acid and potash that help to corrode its earthy particles.—L. N. Bonham, in Rural New-Yorker.

CORN SILAGE AND SORGHUM FODDER

Buff Jersey writes that he produced last year on one hundred acres of ordinary land eleven months' feed for ninety Jerseys, ten horses and twenty-five hogs, which illustrates the value of corn silage and sorghum fodder.

EXTRACTS FROM CORRESPONDENCE

From New York.—The famous Mohawk Valley, called the "Garden of the State," is a good farming and dairying region. Many farmers keep a large number of milk-cows because the facilities with which milk is handled make it profitable to the farmers. All through this region we have cheese-factories, creameries and condensed-milk establishments. The drought of last summer cut down the forage and hay crop considerably. Many farmers turned into beef some of their young stock that were not profitable for milk, thus reducing their herds. With some there was fear of a shortage of forage for winter use, yet most stock was kept in fair condition. The farmer with the silos was at the top. Many of the farmers here have silos to utilize all their sowed corn, a great help in the feed supply for a dairy. The price of hay has been high, and farmers having it for market received quite an income from this crop. Fruit through this locality is usually quite abundant. Small yards of hops are kept by some farmers, but the low price for a number of years back has greatly reduced the acreage of this product. Your "Extracts from Correspondence" are of much interest to me. Through them I find out what people in different parts of the country are thinking of and planning for. I take general farming, a small dairy and a large flock of hens, and I make the combination profitable.

Lykens, N. Y. W. T. P.

From South Dakota.—Sanborn County is in the James River valley, the fourth west of the Minnesota line. We sometimes feel as though we are in the dry belt, but as a general thing we raise fair average crops of corn, wheat, millet, potatoes and other farm products. The raising of cattle and sheep is carried on to a great extent, some of the finest stock-ranches, with the best improvements, being located along the valley of the James River. Our lands are still very cheap, being from about $5 an acre for unimproved to about $20 for the well-improved farms near towns. Wages are about as good here as anywhere in the whole world, $20 to $25 a month being now freely offered for good, capable men to work on the farm for the season of eight or nine months. During haying, harvesting and threshing day-laborers command from $2 to $2.50 a day and board. It is an easy matter for any man willing to work to come here about July 1st and work for $2 a day till snow flies; or, in other words, he can clear $200 during harvest and threshing. Dairying is a great industry, and we have a creamery in successful operation in each town in this county, besides several skimming-stations in the country. The great Milwaukee system furnishes railroad facilities for this part of the country, both east and west, as well as north and south, the two lines forming a junction at Woonsocket, near the west line of our county. There is a steady stream of immigration flowing into this country. It is hard to convey a thorough outline of any country in a few lines on paper, and I would advise all looking for a change of location or wanting work to come in on one of the half-fare excursions, which are run into all parts of the Northwest twice a month. I am always interested in the letters published in the Farm and Fireside from time to time.

Forestburg, S. D. G. M.

From Mississippi.—Calhoun County is situated in the north-central part of the state, about one hundred miles from the northern boundary and about the same from the "Father of Waters" on the west. While one of the most promising portions of the state this county is not blessed with a railroad, the nearest depot being about twenty-five miles from the center. Two rivers with broad bottoms traverse the county; between these two stretches of level, fertile lowlands is a range of hills. If I were asked "What is the best country for the poor man?" I would say that this section of the country, with its many wonderful resources and mild climate, presents the greatest possibilities to the man without capital. This is my honest opinion, and I have traveled over fully two thirds of the United States. While the summers are generally very warm the winters are never severe; there are usually about two or three light snows every winter. The principal agricultural products are cotton, corn, oats, rye, peas, sorghum, sweet-potatoes and hay. All kinds of vegetables grow in profusion. Peaches, apples, pears, plums, figs, grapes, watermelons, muskmelons and cantaloupes grow in abundance, and there is a superabundance of wild fruit, such as persimmons, muscadines, summer grapes, wild plums and cherries. This portion of the state is well timbered. There are groves of pine, red oak, white oak, hickory, sycamore, sweet-gum, poplar, beech and elm. The stave industry is becoming a prominent feature in the development of the county. The staves that were intended for the large wine-cask at the Paris Exposition were made in this county. Great numbers of cattle feed on the clover growing on the commons during spring, summer and fall, and in winter the switch-grass growing along the creeks and rivers furnish an inexhaustible supply of forage. Mast and the natural grasses fatten hogs, though corn is often used to finish off the animals. Clydesdale and Norman horses do not thrive in such a warm climate; mules are more suitable for work than horses. Sheep-raising is not very profitable on account of dogs. Cotton is not a profitable crop when the market price is below five cents a pound. Cotton-factories are being erected all over Mississippi, and these mills will soon be able to handle all the cotton raised in the state; thus a good price for that staple is assured for at least several years. Fairly improved farming-lands can be bought for from $5 to $10 an acre; timbered lands sell for less. E. P.

Big Creek, Mississippi.

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NOTES FROM GARDEN AND FIELD

CONDUCTED BY T. GREINER

MORE CATALOGUE COMMENTS.—From Illinois I just received a copy of a catalogue issued by Mr. H. W. Buckbee, who claims to have had twenty-five-years' success in business. On the first cover page I find an illustration of the Clematis Jackmanni, and of a veranda covered with the vine. Surely this plant is one of the grandest of all running vines suitable for such purposes. Even more striking, and by far more chaste, is the white sort now so much used; but the latter is comparatively a shy bloomer, while the other in its season is just a mass of blossoms. Among the "new and surpisingly fine lettuce varieties" I find one in which I believe I recognize an old friend and acquaintance, the new Asparagus lettuce, which I had from European seed-houses many years ago (Lactuca augustana), interesting, even if old, and one which I think I shall try again. Perhaps we have better lettuce for salad, but the coarse midribs of the leaves seemed to be quite acceptable as a substitute for asparagus. About the new Strawberry muskmelon the catalogue states, "Flavor like that of a strawberry; hence the name." Well, hardly; but a good variety, nevertheless. The appellation which I gave to the Prizetaker onion (through the columns of FARM AND FIRESIDE) in 1889 has been generally accepted, and appears in this catalogue, as in almost all others; namely, "the king of all Yellow Globe onions." Red Giant is offered as "the king of red onions," while the new Wampum is sent out as the real money-maker. From the free use Mr. Buckbee makes of the name "Buckbee's" in the catalogue he seems bound to make a name for himself.

Quite neat, tasty, complete and yet modest is the catalogue of R. & J. Farquhar & Company. Among the novelties I find the Chinese cabbage. A few years ago I grew this, together with a whole list of Chinese vegetables, but to tell the truth I did not find one among them that I cared to use for culinary purposes or to continue planting. These things are interesting to have on the grounds once or twice, but that seems to be sufficient. Our curiosity is satisfied, and that ends the matter and our interest in them. I like to have a few plants of the large English frame cucumbers growing in the greenhouse at this time. Telegraph is offered in this catalogue. It is the sort I usually select for myself. Other sorts here catalogued are Tender and True, and the Rochford, claimed to be a regular prize cucumber.

FERTILIZER-DISTRIBUTOR.—Highly interesting is the new catalogue that came from the Bateman Manufacturing Company. It describes the "Iron Age" farm and garden implements. These goods, so far as I have tried them, are not inferior to anything that is in the market. The use of the Iron Age drill and the wheel-hoes, etc., has given me much enjoyment and profit for the past four or five seasons. This year a new implement comes out, a fertilizer-distributor, which can be run over the rows of close-growing vegetables and will place the fertilizer along on the sides of the row, within easy reach of the roots and well mixed with soil. I have long felt the want of such an implement.

SUCCESSFUL HOME GARDENING.—I have the following letter from one of our readers:

"In former years I used to haul the manure on the garden and plow it under, but of late I have changed to another plan. Now I first plow the garden, then plant the seed, and then put the manure on the surface—as much as I can get on. For corn and potatoes I put it over the whole surface; for smaller stuff, such as parsnips, carrots and the like, I place the manure between the rows. This plan keeps the moisture all in the ground. I formerly carried water to my garden, but with my present way of doing I need no watering. I never use my horse in the garden to cultivate, but have a heavy three-shovel hoe which I draw by hand. I can go through a garden of one eighth of an acre in about two hours. I cultivate my soil all level and from one to two inches deep. I plant the squashes and watermelons among corn and potatoes. As the corn and potatoes ripen I remove the crop and give the vines the whole space. I plant my corn and potatoes deep enough so that they need no hilling. The roots of my raspberry-vines are thoroughly covered with manure. This keeps them fresh all summer. I keep about twenty-five chickens. In the fall, as soon as the tomatoes are out of the way, I turn them into the garden. They will thoroughly clean it of insects and grass. D. H. SHELBY."

"Michigan."

The details of gardening given in the foregoing are very much in line with my own practice, and if followed by our readers will lead them to success. However, I still put on a good deal of stable manure before plowing. I like to have my soil well filled with humus. But in order to guard against the injurious consequences of the long dry spells which we are almost sure to have every summer I know of no better plan than this application of mulch, which may consist of coarse manure or other litter, even weeds, and I have often spoken of this as the plan of "carpeting the garden." The combination of squashes (and where the season is long enough, of watermelons) and potatoes and corn is one that will come useful in many instances. My favorite method is to plant Hubbard squashes in the sweet-corn patch. Sometimes I plant them just in the way that farmers raise their pumpkins for cattle, but more often I leave vacant strips, say of two rows' width, across the corn-field, and here plant the squashes. The vines run through the rest of the corn-patch, and often I secure crops that prove quite profitable.

GARDEN-TOOLS.—Quite a revelation to me is this year's catalogue of S. L. Allen & Co., the Planet Jr. people. It contains a score and ten excellent photo-engravings of the various seed-drills, hand and other cultivators, etc., in use in the field, and is a great improvement over anything I have yet seen in this line. The tools made by this firm are most excellent and serviceable.

BUSINESS CATALOGUES.—Besides the catalogues already named I also have a number of them issued by firms who do mostly a local trade, like the Wernich Seed Company, Harvey Bros., O. W. Clark & Son, S. D. Woodruff & Sons, Henry Philipps, J. M. Philips' Sons, Wood & Sons, and others, who are content to furnish to their customers standard seeds and standard tools without making strenuous efforts at bringing out novelties or presenting striking and sensational features. They all deserve credit for the services they render to the gardenmakers of their respective localities. Wood & Sons, for example, deserve special mention for the role they played in bringing the great value of crimson clover to the attention of the American farmer.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

The Bismarck Apple.—A. S. The Bismarck apple is an early bearer and the fruit is of very good quality. It seems to grow very vigorously when young, but I do not know how large a tree it will make, as it has not been grown long enough in this country to determine that point.

The Peach-tree Aphis.—S. E. A., Horntown, Ky. Syringing the trees about the time the buds are bursting with a suds of whale-oil soap or tobacco-water is a good remedy for the peach-tree louse. Make tobacco-water by boiling one pound of rough stems or leaves in one gallon of water. A frost occurring after a few days of warm weather will kill the young lice. They are also killed by the ladybugs and their larvae.

Applying Salt Around Fruit-trees.—J. H. G., Ray, Wash. The application of salt in large quantities about pear or apple trees might be injurious, but if the trees were well established you could apply a considerable quantity of salt about them without any danger of seriously injuring them. In fact, I think it would be rather helpful than otherwise. I should think it would be perfectly safe to apply at the rate of thirty or forty bushels an acre.

Azalea Culture.—W. A. R., Hutchinson, Minn. The greenhouse azaleas, which are so very beautiful when in flower, require very careful management in summer in order to keep in good condition. Almost all the azaleas grown here are imported from Belgium, where, in the mild, moist climate of that country, they are much at home. Probably the best treatment for your azalea would be to grow it through the winter with an abundance of water and an occasional syringing, and on the approach of summer put it outside in some partially shaded, cool place and see that it does not lack for water at any time, as it is very susceptible to injury from drought. It should be syringed every day in summer. If carefully tended in this way the chances are that you will get some bloom on it next year. It would be better, however, to have some good florist care for it during the summer months.

Nut-bearing Trees for Northern Ohio. N. F. M., Oakwood, Ohio. "Shaghark hickory," pignut, mockernut, pecan, "black walnut," "butternut," Japanese walnut, hazelnut, "American chestnut," "Japan chestnut," European chestnuts, beechnut. Those in quotations are best adapted to northern Ohio.

Hedges in the City.—G. A. H., Van Wert, Ohio. The Osage orange makes a very good tree for a wind-break, but is not a neat hedge for use in a city, as it requires altogether too much pruning. I much prefer buckthorn for use as a hedge in thickly settled sections, as it is easily kept in shape, and while it is not so vigorous as the Osage orange, yet it is sufficiently so for general purposes. I am not much of a believer in the use of hedges in the place of fences, and think that the cheap metal fences are much to be preferred, as hedge fences require a good deal of care to keep them in good condition, and if neglected they become unsightly and a good deal of a nuisance.

An Orchard Crop—Osage Orange.—C. S. W., East Palestine, Ohio, writes: "I have an orchard, six years old, that has too much grass around the trees and needs to be plowed. I would like to plant something this spring that I could turn hogs into later in the season. Would cow-peas do well? If so, state what kind I should sow.——Is Osage orange superior to locust for fence-posts?"

REPLY:—Cow-peas ought to do very well in your orchard, but they are not nearly so desirable at the North as in the Southern states, where they are especially valuable in improving poor soils. I think the variety of cow-peas known as the Black is the best for use in the North.——The Osage orange makes a very durable fence-post, and so does the yellow locust. Either is good enough for such a purpose, but the locust will make a fence-post in much less time at the North than the Osage orange. In some sections, however, the locust is so badly infested with borers that it cannot be grown to advantage.

Dying Pear-trees.—J. H. S., Henderson, W. Va. I cannot say for certain what is the trouble with your trees. They may be dying from the ordinary pear-blight, which is quite common on pears in the Eastern states, and also on apples in the Western states. This disease appears in the early summer and causes the new growth to turn black suddenly, and these dead twigs, with the leaves on them, remain on the tree for most of the summer. For this trouble there is no good remedy, and the best treatment is to cut off the diseased twigs and burn them. It is quite possible, however, that your trees are injured by some root-louse; but in this case the symptoms would be quite different and the twigs would not turn black and die suddenly, but there would be a general weakening over the whole tree and the dead branches would appear gradually. In this case, too, you would find the lice on the roots of the trees near the surface of the ground, and probably occasionally you would see clusters of them on the water-sprouts on the trunk and in other places covered with a cottony mass. The remedy in this case would be drawing the earth away from the roots and giving them a thorough soaking with tobacco-water.

Pear-blight—Grape-rot.—J. R. G., Brownsville, Tenn. There is no remedy for pear-blight. The best way of avoiding it is probably to give a good circulation of air to the trees by removing whatever may interfere with it, and in new plantings to select exposed places and plant those varieties that are least liable to its attacks. When the blight appears it is a good plan to cut it off as soon as may be.——The best remedy to prevent grapes from decaying on the vines is Bordeaux mixture. This is made of five pounds of lime, five pounds of sulphate of copper and fifty gallons of water. The lime should be slaked and the sulphate of copper dissolved in separate vessels. They should then be poured into the water at the same time and the whole kept well stirred. In this way the best mixture is formed. This material should be sprayed upon the vines, commencing as soon as they are set, and the fruit should be kept covered with it until it begins to color a little, after which time no spraying should be done; or, if it is necessary to spray, use some such material as the carbonate-of-copper solution, which will not color the berries. This is the common remedy adopted by growers generally. This material should be applied with a first-class spray-pump.

Woolly-aphis.—J. F. E., Harrisburg, Pa. The piece of limb of an apple-tree which you sent, and which you think is injured by a fungous growth, is really injured by the woolly-aphis, which in one form appears upon the twigs of the trees or on suckers on the main trunk. This insect is very injurious, and is spreading rapidly throughout this country on nursery stock, and planters should be very careful in selecting stock that the roots are entirely free from it. Where it is found upon the roots of trees they can be safely used for planting if they are dipped quickly into hot water—that is, water at a temperature of about one hundred and fifty degrees. This will kill the lice and not hurt the trees. Tobacco-water may also be used. Where the insect exists on the roots of trees, as it undoubtedly does in your case, the trees are apt to die back gradually and finally to die out. You would probably find, by taking the earth away from the roots near the surface of the ground, that there are many whitish lice, and these may be killed by the application of strong tobacco-water made from tobacco leaves, stems or stalks and used about the color of strong tea. It is a good plan to steep them in hot water, as this makes the extract quicker and better than cold water, or to boil about one pound of rough tobacco in one gallon of water.

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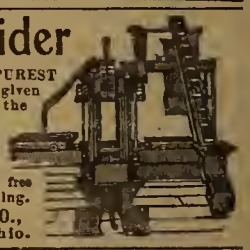
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THE POULTRY-YARD

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WINTER AND SUMMER FEEDING

WINTER and summer feeding differ. When fowls have free range it is most economical to feed them only once a day. The fowls should be let out early in the morning; in fact, the poultry-house, when fowls are given their liberty, may be left open, so that the fowls can come out at will. This they will do at daybreak, and by wandering over the field secure a large amount of worms and insect food. They may require a light meal at a fixed hour. So much depends on the size of the birds that it is impossible to give a precise rule as to the quantity of grain to be given to each. It is obvious that a Brahma of ten pounds' weight and a Game fowl of four pounds would require very different quantities of food. Again, more food is required to keep up the due amount of animal heat in winter than in summer. When a hen is producing eggs she will eat nearly twice the amount of food that she may require at some other time, for which reason the successful poultry-breeder should observe carefully the requirements of his fowls, and govern himself accordingly. In winter the best rule, both as to quantity and time, is to give the fowls a full meal in the morning, and the second shortly before going to roost. There is one important advantage dependent on having fixed hours of feeding, which is that the birds soon become accustomed to them, and do not remain about the house all day long, as they do if irregularly and frequently fed. They consequently obtain a greater amount of food for themselves, and are less troublesome than they would otherwise be. The farmer who manages poultry should be as regular with the fowls as with other stock. There is no "how much" to feed. Each fowl is an individual having characteristics differing from those of any of the others.

SPRING WORK

The hens will begin to lay early in the spring if they have not laid during the winter. Eggs are indispensable for home use, as well as to those who purchase them. By keeping choice varieties winter and summer the eggs will always be on hand to supply the table. Where there is a farm-range it is a good way to fence in about half an acre or so to keep the large breeds (Brahmas, etc.). A picket-fence four and one fourth feet high will keep them in; the non-sitters (Spanish, Leghorns, etc.) will stay out if they have plenty of range. By keeping two varieties pure the farmer or the mechanic can have eggs the whole year round. Brahma pullets and hens, after they get over molting, will lay in the fall and winter. The non-sitters usually begin in March or sooner, and lay till late in the fall; they do their best in the warm season. They should be kept separate from the other breeds. The Asiatics should be raised in the inclosure and the small breeds outside, then there will be no trouble in separating them. Too many should not be kept in the inclosure—fifteen hens during the summer and twenty-four during the fall and winter. In fact, most of the henneries are overcrowded, consequently the hens do not lay many eggs in winter. As to feeding, most fowls do not get enough variety. It is a good plan to give different grains, including oats. The fowls will not eat too much oats when given a variety. Then give other grain—wheat, corn, barley, buckwheat, etc.—for a change, besides some green food. Foragers go to roost early in the evening. It is well to let them have free range at least a portion of the day.

REDUCING EXPENSES

A laying hen pays while a non-layer may be expensive. If one can secure as many eggs as may be desired for family use from a small number of fowls there is no necessity for feeding large numbers of idle hens. There is a temptation to keep as many hens as the poultry-house will hold, which results in overcrowding, and while some of the hens will lay, others will not, the consequence being that the cost is increased and the profits reduced, because the poultryman is compelled to feed more fowls than is necessary. It is almost as difficult to induce some persons to thin out their fowls as to convince them that they should reduce the young fruit on the trees; but in either case it will prove advantageous. There is an enormous loss in this country from keeping a large number of useless males and unprofitable hens, and on many farms will be found as many non-producers as layers. Save expense by culling out all the unprofitable stock, and thus add to the profits.

NO HENS ALLOWED

It may appear strange to some to learn that men have entered largely into the chicken business without a single hen on their farms, yet it is true and not at all an uncommon occurrence. The owners of some of the large broiler plants buy their eggs, and will not allow a hen within gunshot distance of their brooder-houses. A hawk, cat or mink would be more welcome. This is because lice pass from hens to chicks. One can kill the hawk or cat, or trap the mink, but when two or three lice secure an entrance they soon multiply into millions. If a chick escapes and gets with birds outside it is not allowed to return. Disease and lice seldom occur among brooder-chicks without contact with something outside or that comes within. Lice do not come spontaneously, but have a source, for which reason the hen is the last of all creatures permitted in a brooder-house.—The Poultry-Keeper.

WASTING EGGS

The man who feeds three times a day, and gives the hens so much kindness that they will not scratch and work, but sit down and wait for him to come around at the regular hour, simply wastes time, labor and food. What is more, he wastes eggs, for such hens lay but few eggs because they are in a fat condition. Of course, hens should not be poor in flesh, but there is no need of feeding hens more than they actually require. Eggs are costly luxuries when the hens do not lay regularly, and nine tenths of the failures are due to overfeeding.—The Poultry-Keeper.

POULTRY EARNINGS

Last year the poultry earnings of the United States amounted to over $300,000,000, being a greater value by $52,000,000 than our entire wheat crop, $105,000,000 greater than our swine brought us, $30,000,000 more than our cotton crop and more than three times as great as all the interest paid on mortgages during the year.—National Stockman and Farmer.

CORRESPONDENCE

TO KILL LICE.—To kill hen-lice where hens and chickens live in a poultry-house, take coal ashes after it has been sifted and throw all over the roosts. Throw it up on the ceiling and sides of the building, in the nests, and while the hens are sitting put some in the bottom of the nests. After the chicks are hatched put some in their coops. If you do this you will not be troubled with hen-lice, as I have tried it and know. I like the FARM AND FIRESIDE very much, and have taken it for a number of years. M. F. S.

Stockholm, N. J.

INQUIRIES ANSWERED

Number of Males.—D. H., Bench, Wyoming, writes: "How many hens should I keep with a Brahma male?"

REPLY:—Something depends upon the conditions. About ten would answer, though some allow more.

Clots of Blood in Eggs.—L. E. C., Salem, Ohio, writes: "For three or four days fresh eggs have had clots of blood in the yolk; what is the cause?"

REPLY:—Such a clot is caused by the rupture of a minute blood-vessel. It is a frequent occurrence, but is only temporary.

Keeping Eggs.—J. L. D., Harmonsburg, Ky., writes: "How can I keep eggs for selling at higher prices?"

REPLY:—Cold storage is the method employed on a large scale. On the farm the eggs should be from hens not with males, kept on racks in a cool place, and turned twice a week.

Sore Mouths.—J. R. S., Cave City, Ky., writes: "My chickens are afflicted with sore mouths; please give a remedy."

REPLY:—More detail symptoms should have been given. It is probably canker. Sprinkle a pinch of chlorate of potash in the mouths after swabbing with strong alum-water.

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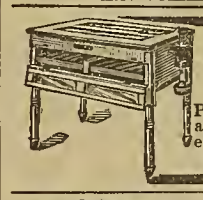
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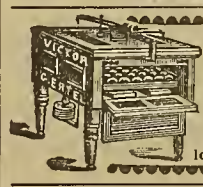

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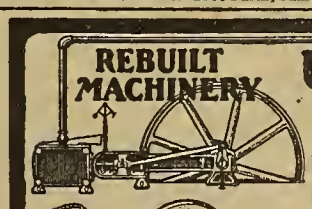
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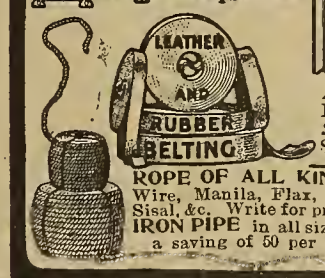

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QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Alfalfa-seed.—C. E. B., Monmouth, Ill. Nearly all seedsmen list alfalfa in their catalogues. See our advertising columns.

Milk-paint.—W. L. C., Cochesett, Mass. A cheap paint for outbuildings of unplaned lumber can be made of skim-milk and Portland cement. Mix the water-lime with the milk to a proper consistency to apply with a brush. By chemical union between the lime and the casein of the milk a hard substance is formed that is more durable than oil-paint.

Getting Rid of Ants.—L. J. R., Tupels, Tex. Ants may be easily killed by pouring a tablespoonful of bisulphide of carbon into a small hole opened in the center of the ant-hill and then quickly and tightly closing all openings into the nest. The deadly vapor of this volatile liquid will spread through all the galleries and tunnels and kill the ants by the wholesale.

Cement or Stone Wall.—F. P. K., Utica, Pa., writes: "I am going to build a bank barn forty-five by fifty-five feet. The main wall will be fifty-five feet long and nine feet high. Which will be preferable, a wall of concrete or of stone?"

REPLY:—The cost of materials and labor will decide this question for you. A wall of concrete properly constructed will be solid and durable, and if you can build it cheaper than a wall of stone laid up with cement mortar, do so. Get estimates on each from reliable contractors.

Brome-grass—Teosinte.—J. J. R., New Shelbyville, Tenn. Brome-grass (bromus inermis) is a hardy perennial, a native of the dry, sandy regions of Europe and western Asia. It has been tested by many experiment stations and recommended highly by them for dry, sterile, sandy soils, but not for wet lands. It spreads by underground rootstocks, and the soil thickens and improves after the first year. In the South the seed may be sown in the fall.——Teosinte is a tropical, strong-growing, corn-like forage plant, very prolific and capable of standing great heat and drought. You are too far north to expect much from it. It is of high value as a forage plant along the Gulf coast, although it blooms too late to form seed in this country.

Peas and Vetches.—J. L., Cove, Oregon, writes: "I would add a few lines to the cow-pea notes by Mr. Fred Grundy in the March 15th issue. I do not know how much difference there is between the cow-pea and the gray pea, so common on the other side of the Atlantic, but as its uses appear to be quite the same perhaps the same treatment may do in each case. They grow wherever garden-peas will grow. I generally planted them early in March, land and weather being suitable; frosts from that time forward never harmed them. It was common to sow fall wheat following them; and the plan was considered nearly as good for the wheat as a fallow, as the vines kept all weeds down. Usually they were grown to thresh. They are very good food for all kinds of stock, especially hogs and sheep. Sometimes, in order to turn the vine under, a skimmer or flay was used on the plow. The harvesting is just the same as for clover, and is fully explained in the notes referred to. Vetches are better than the peas, if possible, for hay or to feed off with sheep in folds. I say try them and see how well wheat can be grown after them."

The cow-pea is a bean. The peas referred to are field-peas, like the Canada peas. The difference between them and the different methods of culture required are concisely described by "David," in FARM AND FIRESIDE of January 15th, page six.

Japan Clover.—S. W. F., Iantha, Mo., writes: "Inclosed please find a plant that has appeared in this vicinity recently and is spreading rapidly. There is no known cause for its appearance here. I did not notice it on my place until last summer. Cattle will eat it in the fall, but do not seem to care for it when there is plenty of grass. It is called here Japanese clover. Please state whether it is an injurious weed or a forage plant of any value, and give some of its history and habits."

REPLY:—We are not able to identify the plant from the small, dried specimen received and your meager description, but it is certainly one of the clovers. Japan clover is thus described by Beal: "A low, perennial herb, with small, trifoliate leaves and very small flowers, producing a small, flattish, one-seeded pod. The seeds of this were accidentally brought to South Carolina about 1849, probably in connection with importations of tea from China. It has spread continually and quite rapidly over the South, and has quite tenaciously held its own, even crowding Bermuda grass. . . . Several writers speak of it as very suitable for poor soils for grazing in dry, hot weather. The stems spread close to the ground, seldom growing over a foot high. It is quite firm and hard, and at first not a favorite with stock; they learn to eat and thrive on it because of its nutritive qualities, which chemical analysis makes quite remarkable. The plant freely produces small seeds, and it is hard to exterminate.'

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Curdled Milk.—G. W. S., Lake View, N. Y. If the milk of your cow, which has to calve in the second half of April, is curdled, or, as you call it, "lumpy," it is probably due to the fact that your cow is too old-milking and has not been made dry in time.

May Be an Actinomycom in the Bone.—H. B. P., Northbranch, Kan. What you describe appears to be an actinomycom in the bone, and consequently cannot be removed by a surgical operation and by caustics. Consult FARM AND FIRESIDE of January 15th.

Looks Very Suspicious.—H. V. J., Colbert, Kan. Your case, according to your description, looks very much like farcy (external glanders), and I have to advise you to have your mare examined by a competent veterinarian; or, what is still better, to inform your state veterinarian.

An Abscess.—M. L. B., Aiken, S. C. If the abscess of your sow, described by you, is probed to the bottom, thoroughly cleaned and drained, and washed out and dressed with a mild antiseptic, perhaps with some carbolized water (2 or 3 to 100), the abscess very likely will soon heal and the swelling will disappear.

Looks Like Navicular Disease.—S. E. T., Natick, R. I. The symptoms of the lameness of your horse, as you describe them, are such as are observed in navicular disease. Occasionally poulticing the hoofs, but nothing else, with powdered flaxseed may give some relief. Please consult FARM AND FIRESIDE of December 1, 1900.

Swelled Legs.—G. S., Brookville, Ohio. Since the swelling goes down when the horse is exercised, give the swelled legs every evening a good rubbing with the hand and then bandage them with a bandage of woolen flannel; invariably begin bandaging at the foot, and put the bandage on as smoothly as possible. Keep it on over night, and in the morning after it has been taken off give the legs another good rubbing with the hand, and then during the day allow the horse all the voluntary exercise he is willing to take. Repeat this every day until the legs cease to swell.

Whether Sheep Require Water or Not.—J. H., Manhattan, Ill. Although certain breeds of sheep (wool-sheep) drink but little, and seldom if kept on green or juicy food, I cannot advise depriving them of water to drink, particularly if kept on dry food, while mutton-sheep absolutely need it. Of course, stagnant and impure water, and particularly water of sloughs and swamps, is apt to contain worm-brood, and is injurious to sheep as well as to other animals. The water offered to sheep must be pure. There is more death in impure water than in anything else.

Difficulty in Passing Water.—L. H. W., Sioux Rapids, Iowa. Your description of your horse's difficulty of making water, so far as it goes, indicates a chronic cystitis, but whether the inflammation is of a catarrhal nature or caused by the presence of foreign bodies, such as a stone, concrements or so-called gravel, also whether it is limited to the bladder or extends to other parts, such as the urethra or the ureters and even the kidneys, can only be ascertained with any degree of certainty by a microscopic examination of the urine and by a local examination through the rectum. A rational treatment cannot be devised until a reliable diagnosis has been secured. If, as is very likely, the treatment will require repeated irrigations of the bladder with a mild antiseptic—for instance, with a 0.5 per mille (1 to 2,000) solution of corrosive sublimate in water—it will be much more difficult to apply in the case of a gelding than in the case of a mare. Still one who is able to make the diagnosis and to apply the means to secure it will also know how and in which way to treat the case.

Infectious Abortion.—S. M. A., Saunders, Kan. If infectious abortion is prevailing on your farm, remove all your cows yet with calf to a non-infected place and keep them there until they have calved; but first disinfect their tails and external genitals by cleaning and washing these parts with a three-per-cent or four-per-cent solution of creolin in water. After the cows with calf have been removed thoroughly clean and disinfect the premises where the abortions have taken place. If any further abortions should occur cremate fetus and afterbirth, irrigate once a day, for a few successive days, the uterus of the cow with a one-per-cent solution of creolin in blood-warm water, and clean and disinfect the external genitals with a three-per-cent or four-per-cent solution of creolin in water. The stall or place in which the abortion occurred, and also the adjoining stalls, must be thoroughly cleaned and disinfected. If these instructions are carried out, and persistently carried out, the abortions can, and will, be brought to a stop, perhaps not at once, but in a short time. There is no cure and no remedy after once an incipient separation between the placentas has begun or after any symptoms of approaching abortion have made their appearance. The only remedy consists in prevention, or, in other words, in destroying the infectious principle wherever it may be hidden.

Opacity of the Cornea.—L. N. K., Princeton, Kan. Since the opacity of the cornea of your horse is of long standing, already four years old, it is incurable and permanent.

Indigestion.—J. G., Middleburg, N. Y. Your cows, it seems, suffer from indigestion, probably brought on by unsuitable, indigestible or unsound food. Change the food, improve the whole diet, and then you may give to each of them from twelve to sixteen ounces of sulphate of soda and from twelve to sixteen drams of powdered black mustard in sufficient water to dissolve the sulphate of soda. Give it slowly, so as to give the animals time to swallow, and do not pour it into the lungs.

Infectious Dysentery of New-born Animals.—A. R., Kinderhook, Ill. Wherever the (infectious) dysentery of new-born animals has gained a foothold in a stable or on a farm nothing but a most thorough cleaning and disinfection of the premises in which the young animals are kept, or having them born and kept in a non-infected place, will do. For further information please consult answer to A. W., Sherman, N. Y., and headed "Dysentery Neonatorum," in FARM AND FIRESIDE of January 15th.

Vomiting Pigs.—G. M. B., Independence, Kan. Vomiting in hogs may be caused by a diverticle in the esophagus (esophagocele), but as it would be rather strange to find several cases in one and the same herd of hogs it will be pretty safe to eliminate this possibility. It is also caused by existing morbid conditions in stomach and intestines, but particularly by ulcerative processes in these organs, and, possibly, by peritonitis. As ulcerative processes in stomach and intestines are frequent in cases of swine-plague vomiting is a frequently observed symptom of that disease, and as there are already several of your pigs vomiting after each meal, indicating that unless there is something in the food that causes vomiting (but then all of them would vomit) the vomiting must be caused by some infectious or contagious disease, it is more than probable that your pigs are suffering from swine-plague, or so-called hog-cholera.

Weak or Paralytic in Hind Quarters.—H. R. K., Sioux Falls, S. D. Weakness or paralysis in the hind quarters of swine, as has been repeatedly stated in these columns, may be the result of numerous widely differing causes. So, for instance, it may be caused by external violence resulting in the fracture of a vertebra; by various diseases of the spinal cord (quite often); by an unsuitable diet or food lacking certain constituents required by the animal organism—such as phosphates, lime salts and nitrogenous compounds—or food too rich in or almost exclusively composed of other constituents—such as carbohydrates—or food containing too much acid; by want of exercise; by various diseases of the muscles, particularly diseases caused by parasites, including trichinae; by sudden changes of food from scant or insufficient to large quantities of fat-producing food, especially if at the same time a sudden change from an abundance of exercise to a want of it is taking place. Such a weakness may also be a concomitant of certain infectious diseases—swine-plague, for instance. Which of these causes has to be accused in a given case can only be ascertained by a thorough investigation. As to the treatment, it must be kept in mind that it is necessarily hopeless in all such cases where the immediate cause is found to be consisting in irreparable organic changes, and that in all other cases success can be expected only if the causes not only can be, but also will be, removed. In all cases of long standing it is pretty safe to conclude that irreparable morbid changes have been produced.

Bog-spavin and Thorough-pin.—M. L. K., Eutaw, Ala. What you describe appears to be nothing more nor less than an abnormal accumulation of synovia in the capsular ligament of the hock-joint, in consequence of which the ligament has become abnormally expanded to such an extent as to cause a bulging out of the anterior median surface (so-called bog-spavin) and on both sides (so-called thorough-pin) of the joint. Therefore, both are essentially the same and very often occur together, while in other cases they make their appearance independently—hog-spavin if the joint is too straight, and thorough-pin if it is too crooked. Both are most frequently met with in loose-jointed and cold-blooded horses, and the exciting cause usually consists in severe exertions or in an overburdening of the joint. As a rule neither hog-spavin nor thorough-pin will cause any lameness, and if apparently attended with lameness it will be found, on close examination, that the lameness is produced by some other cause: for instance, a bone-spavin hidden by the bog-spavin. As to treatment, it is not very difficult to temporarily reduce the accumulation of synovia, and consequently the bulging out of the capsular ligament; for instance, by continued applications of tincture of iodine applied once a day, by gentle pressure effected by means of pads and bandages properly constructed and applied, by feeding dry food and allowing no more water than necessary, by regulating rest and exercise, etc. But such a reduction is seldom lasting, because as soon as the exciting causes are allowed to act again the bog-spavin and the thorough-pin will soon be as large as ever. A surgical operation is out of the question, because any opening of the joint will make the animal a worthless cripple. As bog-spavin and thorough-pin do not cause lameness and do not incapacitate a horse for work, your colt, unless otherwise ailing, will be worth raising; but if it should happen to be a mare I would not advise you to keep her for a brood-mare, because the formation of the joints, constituting the predisposing cause, is apt to be transmitted to the offspring.

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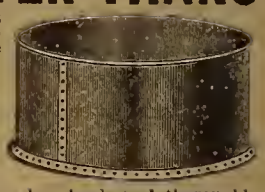

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THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

CURRENT COMMENT

The Farm-Labor Problem The letters continue to pour in concerning farm labor. East, West, North, South—all send the same plea, "Send us helpers, send us helpers." We are glad now that we instituted the inquiry. We find that all the world are akin. We all have the same needs. The following letter from a reader probably voices the sentiments of thousands of families:

"Wife and I are thinking of going to town, as our children have left us. All have lucrative positions. We cannot ask them to come to us. We cannot get good labor. We will rent the farm and move to town, as we want to be as far away as possible from the ruin of the land we have loved and cherished for so many years."

Our sympathy goes out to that family. We, too, have sometimes thought that we would sell or rent. And then we went to the barn to look over the stock and calculate what they would bring. Blossom, the Shorthorn heifer, mooed softly, and laid her head in our arms asking to be caressed. Her glossy coat of hair, her rich, soft brown eyes—all plead that we might remain together. And Cherry, the sedate, dignified, motherly queen, looked reproachfully at us. Mary Chief, the first pure-bred heifer we ever owned, came up and pushed Blossom away to receive her share of attention. The rest of the cows and cattle crowded about us lovingly, each saying as plainly as could be, "We love you; you must not forsake us." The calves pricked up their ears inquiringly. We turned to the sheep-pen. Men say sheep are stupid and stolid. The Dorsets are not. The king of the flock stamped his feet impatiently because we had not sooner bowed the knee to his royal highness. We went into the pen, and they stuck their noses into our hands and said as plainly as could be, "I think we are pretty good friends, don't you?" And then Polly, the pig, added her protest. We went out and sat down on an old rail. Polly came up, grunted knowingly, and laid down at our feet for her customary petting. We sighed heavily. I am not sure but there were tears in two pairs of eyes at that moment. Polly required a good deal of attention just then. Then one of us broke the silence with, "Don't you want to go out and ride the plow? The furrows turn over beautifully." And the farm won.

Each year the fields yield more bountifully and the pastures carry more stock. The cattle and the sheep are carefully culled, and thus the flock and herd grow better year by year. And I am not sure but poor health has been a blessing to both of us. Necessity has compelled us to put our limited energy where it would count the most, and when a crop was raised to feed it to the kind of cattle that would yield the best returns. The fields are being worked into grass as rapidly as possible. The best agricultural papers and books are studied as carefully as are the fields and the stock, and to them we owe a vast debt of gratitude.

Each must solve the problem for himself. It is extremely difficult, and that it is causing much anxiety we have ample proof. To those who love the farm; who see in each recurring day a new beauty, a new splendor; to whom the arms of nature are ever open; who are wooed by her soft caresses and her enchanting love and loveliness; who can feel the life-blood coursing and pulsing even beneath the brown and sear leaves; who are enraptured with the song of bird, the buzz and drone of bees, the whirr of the pheasant's wing; to whom the clouds and the rain bring high and solemn thoughts; who are suffused and permeated by the divine refulgence of the glorious sun; who are thrilled and enraptured by the soft cadences nature whispers to him; whose hearts leap for joy at the ravishing sights and sounds a bountiful spirit showers upon them—to them I would say, As you value life and health and happiness, stay on the farm.

For such a one there are but two places possible—the farm and heaven. Remain with the things you love, and that create within you high and noble impulses. They are your guardian angels, directing you in the paths of truth and righteousness. So long as your soul is open to the messages they bear to you your life will be pure and holy and serene. 'Tis only when you depart from her and refuse entrance to her messengers that she frowns upon you and veils her secrets from your eyes. Go to her humbly, reverently, and ask of her her will, and she will answer you and bless you abundantly in body and in store.

And for him who loveth not nature and inquireth not of her ways? Oh, well, he is not worth talking to. The sooner he affiliates with his natural elements—soot and grime and brick and noise—the better for him and you and I. It is that kind of a fellow who has brought us to our present straits, and forced upon us needs that we should never have felt had he sooner betaken himself to his proper sphere.

Verdi and Cavour "The Critic" tells the following of the late Guiseppe Verdi, the great musical composer: "Verdi, who died recently at his home in Milan, lived to be eighty-eight years of age. He had lived a happy life, spending most of his time in the country. He was always hospitable to strangers as well as to his friends, and though he amassed a large fortune he gave most of it away. He repeatedly refused to accept any political distinction, and only Cavour, whom he worshiped, could induce him to stand for a place in the Turin Chamber. But once elected, he attended every sitting of the chamber, and whenever there was a division he looked at Cavour. If Cavour rose, Verdi rose, too. Cavour died, and on the next day Verdi resigned." "As long as Cavour lived," he explained, "I could perfectly well exercise my duty as deputy."

Of all the rare but rich graces mentioned above the latter was by far the rarest and most praiseworthy. The world ought to erect a monument to so courageous a man, bearing this inscription, "This monument is erected by a grateful and weary world to a man who dared to be great enough to declare, 'I do not know.' Italy has lost a leader; the world a benefactor."

Opportunities Several young men were just emerging from the old academy yard of a small town in Ohio. "Bert's a lucky dog," said one, speaking of a young fellow on the street opposite. "His grandfather offered to give him a thousand dollars to defray his college expenses at A— if he would get a certificate and teach a successful term of school. Wish I had the chance."

"I, too," chimed in another young man. "Bert's too lazy to study. If I had such a chance you bet I wouldn't be plodding along at this old academy."

"Luck's always against me," grumbled another. "My grandfather would see me hung before he would give a cent to save me. There isn't one of us but would jump at the chance to get an education so easy. That's always the way; the ones who would study and make something of themselves never have the chance, while those who won't work have all the opportunities possible to help them."

"I don't know but what we have as good a show as Bert," said Joe S., quietly.

"You certainly have!" sneered the first speaker.

Joe S. worked nights and mornings for this boy's father, to pay his board.

"Lincoln had no one to help him, nor Arkright, Howe or Whitney," said Joe, nettled by the sneering tone of his employer's son. "But they had what was better than all the money in the world—determination and grit. We have better opportunities than any of them if we would avail ourselves of them."

"Oh, I don't know about that," answered one of the boys. "These men had peculiar times. There are no such chances now. Every profession is filled to overflowing. A young man has no chance nowadays to succeed."

"The times in which great men lived are always peculiar," returned Joe. "The men make them so."

Joe left the boys here to cut across lots. He could gain a few precious minutes of time for his beloved books.

"I suppose you'll find a 'peculiar sphere' in currying old Nell," cried one of the boys, tauntingly.

"Or in milking old Brindle," suggested another.

"Cleaning stables is highly edifying," said a third. "Keep at it, Joe, my boy. You're climbing fast."

Joe set his teeth. "Hercules did not scorn to cleanse the Augean stables," retorted he.

The years sped by, bringing their changes to each of the boys. One of them was a clerk, another a paper-hanger, while the third subsisted by odd jobs.

Joe S. secured a certificate, taught school in winter and worked on the neighboring farms in the summer. He completed a college course at A— and then went to a medical school. He had defrayed all his own expenses. The last year at the medical college nearly exhausted his resources. How to secure money to buy a graduation-suit was a serious problem. One of the professors came to him one day. "Would you be willing to clean a cadaver for us?" he asked. "We will pay you $5 for doing so."

Joe gladly consented. Then followed days and nights of anxiety. The cleaning of a cadaver is not productive of poetic dreams. But several weeks before commencement-day the work was completed, and Joe sent the money to his mother. She bought jeans, and with her own hands made the graduation-suit.

To-day Joe is a successful and wealthy physician in one of the largest cities in Kansas. He has been connected for years in a high official capacity with one of the leading medical schools of that state.

There are more opportunities to-day for the ambitious boy or girl than were open to Joe S. There is a wider range for individual preference, and the need for strong, courageous, self-reliant men and women is greater, because the world knows its needs better. And the opportunities will increase year by year as the race grows stronger and wiser. There is no cause for an ambitious boy or girl to fear the future if armed with a spirit to honestly and courageously overcome each and every obstacle.

Stamp Taxes July first will be a red-letter day for many farmers. It is then the odious tax on checks and other paper transactions will be removed. There is great danger in keeping money in the house in country districts. But many farmers who heretofore paid their bills with checks, since the stamp tax became operative have kept larger sums of money on hand and paid only the larger bills with checks. All will joyfully hail the day when the convenient check can be again used for small amounts. Checks are safe, convenient and expedient mediums of exchange.

GOOD BUSINESS HINTS

Following are a few extracts from that excellent little work, by A. E. Rice, "Small Talks About Business:"

How to Ruin Credit.—If your credit and business standing are good, and it is your purpose to keep them so, do not sign notes and bonds with every Tom, Dick and Harry that comes along. Of course, circumstances are likely to arise where you may be justified in accommodating a friend, but if you make an extensive practice of this sort of thing you will soon find that your own credit is being ruined.

Bankers Keeping Business Private.—All persons doing a legitimate business at a bank have a right to expect that their affairs shall be kept strictly private. This being the rule, you should not ask the banker concerning the deposits of this man, nor the loans of another. A prudent banker will decline to give you such information. Therefore, if you would have him keep your affairs private, you must expect him to do the same for others.

Giving and Taking Receipts.—When receiving money from others on account always give receipts. Insist on their taking them and keeping them. These receipts may by and by be as valuable to you as to them. Blank receipts, bound with stubs, can be had at the stationer's at trifling cost. Stubs when properly filled are useful for reference. It is equally as well to take a receipt when paying an account. It certainly does no harm, and may avoid the necessity of paying the same thing twice. You cannot, of course, get receipts for everything, but always take them when convenient to do so. Never destroy receipts, but keep them where you can lay your hands on them should occasion require. They may be found of value, and at a time when least expected.

Adopting Style of Signature.—As soon as you are old enough to transact business, no matter how small, then is the time when you should adopt the style of signature that shall be used through life. Choose the style of penmanship that suits you best for this purpose, and having once made the selection forever afterward stick to it. You may change or vary the form of your ordinary writing if you wish, but the style of signature should always remain the same, being as regular and uniform as possible. To the business world your signature becomes as familiar as your face.

ANOTHER STONE ADDED TO THE UNITED STATES TRIUMPHAL ARCH

by its great victory at the Union Dairy Institute held at the Massachusetts Agricultural College, Amherst, Mass., March 20, 1901. This was a union meeting of the State Board of Agriculture, the Hampshire Agricultural Society and the Massachusetts Agricultural College, at which there was an exhibit of butter and a test of Cream Separators.

In the Butter Exhibit, which was scored by Mr. Orin Douglas, the veteran butter judge,

THE IMPROVED U. S. SCOOPED ALL THE PRIZES

1st, $25; 2d, $15; 3d, $10

The Five Highest Scores went to its Product, as follows:

A. A. CROUCH, Shrewsbury, - - 96½
H. G. RICHARDSON, West Acton, 96
T. F. HUNT, Weston, - - - - - 95
W. A. HARLOW, Cummington, - 94½
L. B. SMITH, Groton, - - - - 94½

The U. S. Scored Another Victory in the test of Separators, as will be seen by the following report:

Machine	Cream Test	Skimmilk Test
United States,	40 per cent.	.015
Sharples,	40 "	.03
Empire,		.06

The DeLaval Separator was run, but the skimmilk was not allowed to be tested. "Wonder why," "wonder why." Those who have had experience with its skimming powers can perhaps guess why.

The above is another of the many instances where the

Improved United States Separator has demonstrated its right to be known as the Standard Separator of the World.

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Bellows Falls, Vt.

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in the Home or Public Laundry

saves its cost in soap and starch, not to mention the saving in time and labor. Makes clothes whiter than any other process, does not shrink woolens nor fade colored garments,—neither does it injure or discolor any fabric.

A little Borax added to the starch makes clothes glossy, and the starch will not stick.

Sold by all druggists and grocers.

Other valuable recipes and information regarding the use of Borax in toilet, sick room, kitchen, nursery, etc., is contained in our new booklet—"Borax in the Home"—sent free on request to our Chicago office.

PACIFIC COAST BORAX CO.,
San Francisco Chicago New York

CONSUMPTION, Catarrh, Lung Troubles cured at home. Easy, cheap. Advice free. J. W. OGDEN, Lynchburg, Va.

If afflicted with weak eyes, use Thompson's Eye Water

THE MOTHER-IN-LAW By Ella Wheeler Wilcox

She was my dream's fulfillment and my joy,
  This lovely woman whom you call your wife.
You sported at your play an idle boy
  When I first felt the stirring of her life
Within my startled being. I was thrilled
With such intensity of love it filled
The very universe! But words are vain;
No man can comprehend that wild, sweet pain.

You smiled in childhood's slumber while I felt
  The agonies of labor. And the nights
I weeping o'er the little sufferer knelt,
  You, wandering on through dreamland's fairy lights,
Threw out your lengthening limbs and slept and grew,
While I, awake, saved this dear wife for you.

She was my heart's loved idol and my pride;
  I taught her all those graces which you praise;
I dreamed of coming years when at my side
  She should lend luster to my fading days,
Should cling to me as she to you clings now—
The young fruit hanging to the withered bough.
But lo! the blossom was so fair a sight
You plucked it from me for your own delight.

Well, you are worthy of her, oh, thank God!
  And yet I do not think you realize
How burning were the sands o'er which I trod
  To bear and rear this woman you so prize.
It was no easy thing to see her go—
Even into the arms of the one she worshiped so.

How strong, how vast, how awful seems the power
  Of this new love which fills a maiden's heart
For one who never bore a single hour
  Of pain for her! Which tears her life apart
From all its moorings, and controls her more
Than all the ties the years have held before;
Which crowns a stranger with a kingly grace,
And gives the one who bore her—second place.

She loves me still; and yet were Death to say,
  "Choose now between them," you would be her choice.
God meant it to be so—it is his way.
  But can you wonder if, while I rejoice
In her content, this thought hurts like a knife,
"No longer necessary to her life!"

My pleasure in her joy is bitter sweet;
  Your very goodness sometimes hurts my heart;
Because for her life's drama seems complete
  Without the mother's oft-repeated part.
Be patient with me! She was mine so long
Who now is yours. One must indeed be strong
To meet the loss without the least regret,
And so forgive me if my eyes are wet.

Old Ladies' Homes

BY BERTHA KNOWLTON

OFFICIAL reports from the old ladies' homes located in representative cities of Ohio and other states are very much alike. Requirements for admission, rules governing conduct of inmates and business management of the institution are such that an insight into one home gives the essential points of the others. There may be great variety in detail, but the object is one and the same—to provide a home for the care, support and general comfort of aged people. In some of these homes men are admitted, but I speak especially of homes for aged women only.

It is not a public charity in the sense of being under the control of the city, county or state. Its affairs are usually managed by a board of trustees chosen from members of an association who have banded together and pay a fixed annual fee to meet part of the expenses of the home. Some are sectarian and some are not. The one partially described in this article has representatives from every church, and seems on the whole to be preferable to a sectarian institution. Thus the Jewish homes (the oldest in Ohio being in Cincinnati) are among the most prosperous. The Presbyterians of Philadelphia support three homes for the aged, and the Louise Home in Washington is the wealthiest and most exclusive.

As ordinarily conducted, the routine business, annual meetings of members of the association, monthly meetings of trustees, committees and subcommittees are like other organizations. An immense amount of detail must be disposed of, and we find committees on maintenance, work for inmates, ground, admission, finance, etc. It is also the duty of the board to appoint a matron, and upon her rests largely the making or the marring of the home. She receives applicants, has charge of household goods, looks after the sick, plans meals, keeps written accounts, receives visitors, and is diligent in season and out of season. Hers is not a position to be sought for by those who wish little work and large pay; yet if she is a great-hearted, strong-bodied woman her opportunities for noble work are boundless. Her ministry will be a ministry of love. With such a matron as this let us go through an old ladies' home and ask questions as we go.

It is sundown on a winter day, and our consciences give us a twinge as we go up the steps of a three-story red brick and ring the bell. We know right well that it is a busy hour for housewives, and we have little hope of seeing the home at so late an hour. A pleasant-faced old lady opens the door, and seating us, goes in search of the matron. We wait but a moment, and her cheery greeting puts us at ease, as we are welcomed more like expected guests than the intruders we feared ourselves to be.

"Yes, indeed," she says, "you shall see what little we have to show you. Begin where you are," she adds, laughingly, "for there"—pointing to the reception-room—"is the only room in the house that does not belong exclusively to the inmates."

The broad corridor is brightly carpeted, furnished with easy-chairs, reading-tables, book-cases, pictures and enough bric-a-brac to lend a homelike air. An open piano bears evidence of recent use.

"Do you have musicians among the old ladies?" we ask.

"Several play beautifully, and the piano is at their service at any time."

"Are all of these rooms opening from the main hall occupied?"

"Yes; and the other two floors are on the same plan. We have forty inmates, and six hired helpers besides myself."

Pausing at this point to knock at a door, we receive a hearty "Walk right in!" and the matron introduces us to Mrs. A, who lives in this room, and to Mrs. B, who has evidently dropped in for a friendly chat on her way to tea. Mrs. A seems a happy soul. Mrs. B meets our advances, but sourly.

"How you must enjoy this sunset!" we say, by way of conversation, for they sit at a large west window. Too late we discover our mistake, for she whom we mentally put down as a crusty creature is stone-blind, and sunrise and sunset matter not to her.

A few doors further on the matron knocks again. An invalid with snowy hair sits at her window. No need to ask her if she enjoys the magnificent sunset. Peace, refinement and quiet joy are in every line of her face. Her room is exquisitely neat and has the home feeling that some women know so well how to impart to whatever nook they live in.

Across the way the door is open, but nobody at home. We step inside. "A mother and daughter live here," says the matron. We express surprise, and learn that a number of mothers and daughters have been in the home since its beginning, twelve years ago. The mother is usually very old, as the daughter must be fifty or more to enter.

Next is a tiny but comfortable room with a very small body for occupant. She is too spry to be called old, but has evidently seen her half-century some years ago. Mrs. D gives us the heartiest reception yet. She is a German of ample proportions who has seen better days, but does not therefore sit moping. She shows us a spread knit with her own hands, and her broad face glows with honest pride in her work. She shows us bedroom slippers and other pieces of her handiwork, and tells us in the quaintest broken English how her knitting brings her in spending-money. A romance is waiting to be written of the German bride of long ago, the early home in America, years of prosperity and plenty, then reverses, and now for twelve years the quiet home, the knitting, the living over of old times, and through it all the most indomitable cheerfulness and good-nature.

These are but types of many others who find the old ladies' home a restful haven for last years. When we have seen them, talked with them, admired their surroundings, it is with genuine human interest we stay after our rounds are made and ask many questions of the matron.

"What circumstances brought them here? What steps are necessary for their admission?"

"Some are left without kith or kin; some are too independent to live with friends or relatives; some have had great reverses, and only seek quiet and shelter. Of course, we have all sorts, and each makes her home-life in her own room what she chooses to make it. As to admission, an applicant must be recommended by some member of the association. Fifty is the age limit, but few enter so young. At fifty the admission fee is $500; at fifty to sixty, $400; at sixty and over, $300. This insures care for life, be it many years or few. Old Mrs. D came in twelve years ago for $300, so you see it has been a good investment for her. No person outside of our own county can enter at any age for less than $500. All property of the applicant must be surrendered to the home, to be invested for her benefit during life, but to become at her death the property of the home."

We are somewhat aghast at this feature of homes for the aged, but it is quite generally the custom. Since provision is made for withdrawal of dissatisfied members it is not a tyrannical rule. The entrance fee seldom covers anything near the actual expenses of an inmate, as is seen in the case of Mrs. D, who had a comfortable home at the rate of twenty-five dollars a year. It may be designed to prevent children or guardians from getting rid of their charges at slight expense and gobbling their surplus funds. At any rate, no one need go into any such home blindly. Medical attendance, all of the necessities and many of the luxuries of life are free ever after the entrance fee is paid, and those who have friends to will their property to are not usually the ones who spend their last days thus.

"Are these old ladies free to come and go as in their own homes? Can they invite guests, make visits and feel that the institution is in very truth a home?"

"Within certain limits they do exactly as they please, but in so large a family a few regulations must be strictly enforced for the good of all. Permission must be asked for absence over night and for the giving and receiving of visits, as any housewife must know beforehand and plan for such things."

It is readily seen that such rules need not be irksome if enforced by a tactful and sympathetic matron.

"Are they happy, or do you get some very cranky old women?"

"On the whole they are contented. Within reasonable limits I humor whims and consult individual tastes. I never take company to a room when I know it is distasteful to the inmate, and avoid unnecessary friction at all times. As to unreasonable ones, we find that old ladies who could hardly be lived with at home come here and are quite agreeable. They don't dare treat comparative strangers as they do their own people. Usually they have been feared and humored and allowed to become tyrants among their own people, but they have too much pride to show off their tantrums here."

"Do they help about the housework?"

"They are not required to do anything outside of their own rooms, but it is a pleasure to some, and we let them do light work. They may knit or sew for outsiders if any choose to furnish materials. Many of them earn spending-money if they have no other income."

"You have an ideal location for such a home, with the park in front, open country on all sides, and enough ground of your own for garden and lawn."

"Yes; our old people love to have their own flower-beds, and we even raise some of our own vegetables. They like the quiet and peace in this remote corner of the city, and few would care to lead a more exciting life than they have here."

As we rise to go we are invited to look into the dining-room, where supper is now in progress. The long tables make us think of an old New England gathering of grandmas and aunties on Thanksgiving day. It is hard to realize that the rollicking youngsters are not awaiting their turn in an adjoining room; that no stalwart sons and daughters, in the full swing of life, will come in with a word of cheer for "mother;" that no childish voice will whisper "Now I lay me" at grandma's knee to-night. It is a touching sight, in keeping with the fast-closing winter day, but the glory of the sunset lingers in our minds, and we see its reflection in a few of the faces before us.

We go home sobered and thoughtful, for there is something in age very close of kin to that greater change a step further on. As we talk it over we reach a conclusion something like this: Probably most of the old people we have seen are more tenderly cared for and freer from worry than they could be with friends or relatives. Others have no one in the world to call their own, and choose to be here rather than to run the risk of becoming dependent upon strangers. By paying for their privileges and entering into a business compact they do not sacrifice their self-respect. On the whole a home of this nature is a great blessing to the aged. Young people and middle-aged people full of life and vigor do not always understand how the noise and stir of the home wear upon an old person. Let us hope her last days are oftener weary through thoughtlessness than through cruelty or neglect.

Ideal home-life is simply out of the question for many an aged woman. With her it is not a choice between home with a little letter and home with a capital, but it is making the best of a fate that leaves her alone in the world, and perhaps with little health and less means to meet the exigencies of age.

To say that any home for old ladies can make up for a real home and husband and family and friends is to say too much. It claims nothing of the sort. But such a home does offer a peaceful haven wherein to rest a little while before the voyage over untried seas. Its shelter is gratefully accepted by hundreds upon hundreds of aged women.

HINTS FROM MY NEIGHBORS

For the last few months it has been the custom for the ladies of nine families to meet at the home that is most central for all each Thursday afternoon from two to four o'clock. The neighbor who proposed these meetings offered her home as a place of meeting, and as she is the one who, not being very strong, might not always be able to go out it was decided to accept her invitation. Another advantage of always meeting in the same place is that if any one is absent one Thursday she will always know the place of the next meeting. It is not a club, nor does it call for refreshments. It is just to exchange ideas and help one another.

Mrs. P says her work has been made much easier since she learned not to wipe the dishes after washing them. She washes her dishes in the usual manner, wipes the silver, but all the china and glassware are rinsed in cold water and turned to drain in a large wooden bowl with a folded cup-towel in the bottom of it. This bowl is set away on the pantry shelf until time to set the table for the next meal, then the dishes that are not needed are put away on their shelves. She emphasizes the use of cold water for rinsing, as then the dishes will be as bright as if wiped, while if they are rinsed in hot water they are liable to dry streaked.

It has become quite the fashion to use nuts in salads, cakes and sandwiches. There is no doubt that they possess considerable nutritive value. Mrs. B tells us she makes a delicious dessert by adding chopped nuts to an icing made as for cake, then spreading it on reception wafers. These are nice for school or picnic luncheons, and are but little trouble to prepare.

Mrs. A told us last week of a way to make quick fruit dumplings of canned fruit. Put the contents of one canful of fruit into a saucepan to heat, and while it is heating make the dumplings as follows: Take one cupful of flour, into which sift two teaspoonfuls of baking-powder and one fourth of a teaspoonful of salt. Add enough sweet milk to this flour to make a soft dough, which is dropped in teaspoonfuls over the top of the fruit when it is boiling. Cover the saucepan closely, and let the dumplings cook about fifteen minutes, when they are ready to serve, placing a dumpling in each saucer, with fruit and juice around it. If the fruit was not sweetened when it was canned, sweeten it before serving. Whipped cream may be served with these dumplings.

MAIDA McL.

TWO DELICIOUS PUDDINGS

IMPERIAL PUDDING.—Mix well four ounces of finely shredded suet, four ounces of grated bread-crumbs, two ounces of ground rice, the grated rind of one lemon and one half teaspoonful of baking-powder; moisten this with two well-beaten eggs and as little milk as possible, then turn the mixture into a buttered mold, cover with a sheet of buttered paper and steam for one and one half hours; when cooked turn it out and serve with lemon sauce.

JERSEY PUDDING.—Mix one ounce of flour, a tiny pinch of salt, and two ounces each of ground rice and brown sugar; work it all till smooth, with four ounces of first-class butter, then add two ounces of stoned and chopped raisins, one teaspoonful of finely grated lemon-rind, three well-beaten eggs and two tablespoonfuls of milk. Pour it into a well-buttered mold, cover with a buttered paper, tie down with a cloth, plunge into boiling water and boil for one hour; turn out, and serve with a sugar syrup made by boiling one half pound of sugar in one half pint of water with some thinly peeled lemon-rind for ten minutes, then spread it over the pudding.

THE CHIMING OF THE BELLS

In the house across the way they have been for years weaving a tapestry. Some have called the work a play, and spoken of the tragedy and comedy of life there, but that is too common a way of putting it. The pattern with its life-figures has mostly been homely, and it would not be worth while to in any way bring it before the world except for the "preachment" in the hem. In the hem of the robe that Aaron wore there were a golden bell and a pomegranate all around, which tinkled as he moved about. So in this tapestry hem, or fringe, if the piece is moved, must sound out lessons to our girls.

There was an old and very pathetic ballad that said, "Men must work and women must weep." In the newer era of thought and action, if men are well and do not work women need not sit down and starve and weep. With the new century home-life will be none the less sacred nor no less carefully maintained by the broadest-minded; but our women have learned enough of their own capabilities to feel that their individuality serves them well, oftentimes.

Jack and two Jills were playmates, and all through childhood were fond of each other. The time came, after they were grown up, that Jack married one, while the other went to an art school, and in due time obtained a good situation in a Western town as teacher of drawing and painting. The widowed mother of the teacher had left nothing undone to educate her daughter, and the daughter in turn was glad to make a pretty home for the mother. The daughter had one hundred dollars a month, and, as the students used to say, they had one of the sweetest little homes in the town, made such by their own taste and ingenuity. The mother was growing old, but was full of contentment.

In this house across the way Jack and his wife Jill lived, poor as the famous Job's turkey, for Jack had developed no taste for working; his plain, hard-working neighbors said he was lazy. But whether he was or whether there was some lack in his make-up does not concern the story.

Jill grew sick with consumption, and the neighbors cared for her a long time and watched her slip away from her poverty. After a few months Jack began to fix up the house a little, paint outside, and finally told some of the people that he was going West to bring home a wife.

When the story was known it seemed that he had bethought himself of the rosy-cheeked artist Jill, and had written her a letter. Then others followed, until he went to see her and asked her to share his lot and life.

She told him that she must care for her mother, and wished to do so; told him just what she earned, and that her mother must be comfortably cared for the rest of her life.

He assured her he could do much more for her than she was earning, and told her of his three or four houses, besides the good trade of architect and builder.

She accepted his offer of heart and home. In the solemn marriage ceremony when he said "With all my worldly goods I thee endow" he did not tell her that his worldly goods were great mortgages and taxes and judgments piled up so high that there was no claim whatever for him. The property itself would not pay his debts.

The pretty artist wife moved in across the way, and how she did work for months trying to help Jack retrieve! For it took only a short time for her to find out the state of things. Whatever money she brought she loaned Jack to pay the workmen; but what few jobs he had only brought him more in debt, for he always came out of a piece of work in debt. When she talked with him about taking boarders or teaching private pupils he became angry, and only said she ought to be willing to share his lot.

The second winter opened and things were worse than ever; not a shovelful of coal, nothing upon which to live and hopelessly in debt. There were no children in the household, so it was simply a question of the grown people. Mrs. Jack thought it over carefully, and one day when her neighbors saw her with her mother and their trunks drive away to the station, and knew that she had gone to take up her work again and support her mother, they exclaimed, "What a sensible woman she is, and what a mercy that she has a profession, that she is adept enough to so easily again take her place as wage-earner!"

A crafty woman would say that the teacher ought to have been more careful and inquired about Jack. So she knew when it was too late, but she trusted to a girlish ideal. There is a sentiment with many that the heart can be trusted, but a little common sense mingled with sentiment often saves care and suffering such as came into the "house that Jack built."

Jack was cross and abusive, and when his wife went away he sat in his favorite spot, his feet upon the kitchen hearth, and remarked that evidently she was not satisfied to share his lot.

No; why should she be satisfied? While a true marriage and a home as it should be is the nearest to a bit of heaven let down on the earth, a wide-awake, educated woman need not sit down and freeze and starve with any one like Jack. But the bells that ring loudest around the tapestry are the often-repeated chiming, "Be thorough, girls, in your education, and have one thing which you can do profitably if it is necessary."

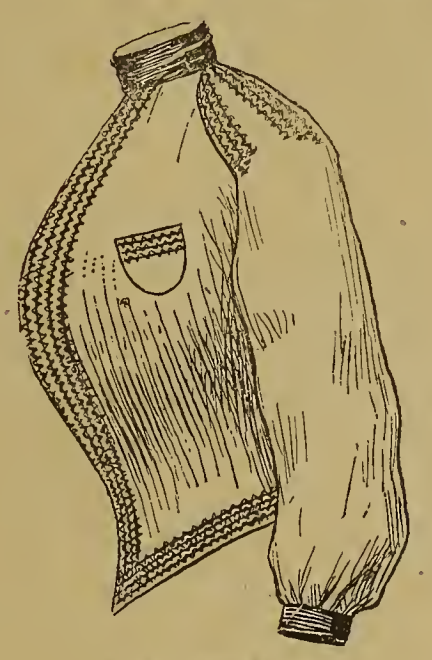
Mary Joslyn Smith.

THE RAGLAN SHIRT-WAIST

The very latest in shirt-waists, so new that it is scarcely seen even in New York as yet, and so new and extreme that it will not be popular in the sense of common for some time, is the Raglan shirt-waist, which is a particular delight to the tailor-made girl.

It is usually made from plain-colored materials in order to show off the effect of the stitching and to intensify the extreme shape of the sleeves, which are perhaps the only new feature, yet so new as to change the appearance of the entire waist.

The Raglan shirt-waist is absolutely plain and tight-fitting front and back and relieved at the center front by a stitched box-plait fastened with studs. A tiny pocket on either side of the front slightly above the bust-line also relieves the plainness. The sleeves are made exactly the same shape as the ordinary coat-sleeve of a man's cravanette or Raglan.



RAGLAN SHIRT-WAIST

They are perfectly plain, like an ordinary coat-sleeve, until they reach the shoulder, when, instead of stopping there, they are extended up across the shoulder entirely to the neck-band. They are perhaps two inches wide at the neck-band and slant to about five inches at what would be the shoulder-seam.

As I have said, all the seams of the Raglan shirt-waist are double-stitched, to intensify the plainness and newness of the waist.

A white flannel waist with black stitching, or a black with white, is decidedly extreme but stylish.

The fashion papers ought very soon to introduce the Raglan shirt-waist pattern, but a deft-fingered woman might experiment very successfully from the above description with paper-muslin, and manage to furnish her own pattern, the only material difference, as stated before, being in the shape of the sleeves.

E. L. H. R.

WATER-CRESS

Water-cress is a most delicious and healthful salad plant and an excellent blood-purifier. It grows well in mucky situations, but does best on the edges of streams in shallow water. Once established it will constantly renew itself and needs no further care. If not allowed to go to seed it will afford crisp, piquant greens in great abundance for a long season. On almost every farm there will be found situations exactly suited to its modest requirements, and as there is always quite an extensive demand for it in the cities, aside from its use in the family, it may be made one means of adding to the housewife's or children's pin-money.

It may be served as a salad very simply by itself, with a plain French dressing, requiring only to be carefully washed through several waters and served cool, fresh and crisp. Combined with pecan or walnut meats it also makes an excellent salad.

Cress and Apple Salad.—Peel, core and cut in dice-shape medium-sized tart apples; mix with one pint of crisp cress carefully washed and broken into small pieces. Mix lightly and serve with a plain French dressing.

Cress and Tomato Salad.—Scald and peel four medium-sized ripe tomatoes, then let get very cold. Remove the seeds and chop into small dice. Mix lightly with one pint of fresh cress washed and broken into small pieces, and serve in tomato-cups with a French dressing.

Cress and Cucumber Salad.—Cut two pared cucumbers into quarters lengthwise, then into half-inch pieces. Pick over, wash and drain one pint of fresh cress, then dry in a cloth. Mix lightly with the cucumbers in a salad-bowl, and pour over a French dressing.

A very good French dressing for green salads is made by mixing four tablespoonfuls of olive-oil, one fourth of a teaspoonful each of salt and white pepper, then dropping in one tablespoonful of lemon-juice or vinegar while stirring briskly.

Cress sandwiches are delicious. To make them, cover thinly sliced buttered bread with crisp leaves of water-cress, and sprinkle with a little salt and a very little lemon-juice; put on the other slice of bread and press lightly together. Or to vary them sprinkle some of the cress-covered bread with grated cheese or the mashed yolks of hard-boiled eggs. Sometimes the bread is spread with cress-butter. This is made by working crisp cress-leaves into fresh butter and adding seasoning to taste. Another way is to wash one pint of fresh cress, pick off all the stalks, and put the leaves in rapidly boiling water for two minutes. Remove, drain, pound to a smooth paste, and add one teaspoonful each of onion-juice and lemon-juice, a dust of nutmeg and a dash of white pepper. When cold rub into six ounces of fresh butter worked to a cream. Spread the bread for sandwiches with this, cover with finely chopped pecan or walnut meats, then with another slice of cress-buttered bread. These are especially dainty.

Mary Foster Snider.

AFTER ARBOR DAY

The little Brown children had been greatly interested in the Arbor-day exercises at the school-house, but were not satisfied. They wanted to know more about the trees. Their mother told them to invite some of their young friends in and they would have a "tree evening."

Each guest was to tell all he could about some tree, the name of which was to be given him with the invitation.

When the friends arrived they found the house decorated with spring greens and autumn browns, much of the material being tissue-paper, as the foliage was not far enough advanced to supply a sufficient quantity. The souvenirs were dainty cards on which Mrs. Brown had painted the trees that were to be discussed during the evening.

One of Mrs. Brown's neighbors said to her, "Well, I am sure I would not take so much time and pains for a lot of children. I would not go to so much trouble to please my children, anyway."

In reply Mrs. Brown said, "I would far rather take trouble for them now than to have them make trouble for me when they grow older. I want them to learn to love their home; I desire them to have those ideas instilled within them that will shield them from the evils of the world."

The refreshments were simple, though dainty and inexpensive, and were served on shingles (parts of trees). Paper (woody fiber) napkins were used, and their finger-bowls were the halves of a cocoanut-shell.

Twenty different trees were described in a delightful manner. Questions were asked, and comment was invited.

Grace Green said of the almond-tree, "My tree blossoms in the first month of the year, hence is called the almond, which signifies to awake early. It has blossoms of a cream or pinkish white. There is something very odd about these blossoms or their time of appearing, however, for they appear before the leaves do. A great deal of prussic acid is stored up in the leaves.

"Prunus communis is the scientific name of the almond. It is a fruit closely allied to the peach. Some think the peach has been derived from it by a process of cultivation and selection. The 'fruit' proper of the almond is inedible, the pit being the valuable part. Although this tree is a native of the Mediterranean valley, it is at the present time being cultivated extensively in California. It is cultivated in the same manner as the peach. The fruit is shaken from the tree as soon as the outer flesh bursts open. The hulling is done by hand or machine power. When thoroughly dry the stones are bleached with sulphur fumes to improve their appearance. There is a bitter variety which yields the 'oil of bitter almonds' which is used for medicinal and confectionery purposes."

Some of the guests were able to tell but very little about their trees, yet all said something.

It is not wasted time to spend hours with and for our children. We want our children to feel as Mr. Moody wanted his to feel, "that there is no place in all the world so dear as the old home, and no friends quite so true as father and mother." No doubt many of you remember reading "Paul Moody's Dedication." Paul had built a barn. Such a barn! He was a little boy, it was a small barn, yet he wanted it dedicated. Guests were invited—his little playmates and Professor Henry Drummond and other distinguished men, who were to make dedicatory speeches.

Ah! there are so many ways of making home attractive and parents beloved.

Ella Bartlett Simmons.

THE PLEASURE OF DUTY AND THE DUTY OF PLEASURE

Some hold that the secret of Christianity lies in renunciation. But with all deference to the great teachers, pain and sorrow, is it not more noble and more in accordance with the laws of life—that is, the law of God—to use than to renounce? "Command them that they go forward!" This life of ours must be made a continual advance. Even when the path is rough and the ascent difficult it is best to keep on courageously. There is no pleasure so great as that gained by following conscience and feeling sure that you are in the right. And there is no right-doing that does not bring with it something to enjoy.

In a life of constant toil and monotony, like that of many a faithful housekeeper, while there are moments of discouragement there are other moments of pure joy. There are pleasures near us that we sometimes fail to notice. The world is full of beauty and of things meant to delight our hearts. If it is nothing more than the sunlight—the morning and evening glory of the sky—that, at least, is for everybody. A dear sister of mine on her death-bed often greeted me in the morning with a look of radiance on her worn features, and this expression, "Oh, such a beautiful light this morning!"

That light upon the features in which the spirit shines through like an inclosed lamp may give a little cheer and comfort to those around us, day by day, if the heart can be kept like a lamp, filled and trimmed. Courage and cheerfulness must supply the oil. It is true philosophy to take the good gifts of life and enjoy them freely, but without selfishness, living in that which is good and bright, and giving it out again in our daily words and deeds to all with whom we come in contact.

Another novelty in the way of organized thought and effort takes the shape of clubs for promoting cheerfulness. Such is the "International Sunshine Society," which has forty branches in Pennsylvania alone. "Good Cheer" is the motto. The aims are to inculcate the habit and to help others to "look on the bright side," not to "borrow trouble," but rather to expect everything to grow better, and to say and do pleasant things, and pass along smiles and kind words on the journey of life.

The playful name of "Little Sunshine-maker" once given to a child that was very dear to the writer indicates this happy temperament, a blessing to herself and all about her.

Mrs. D. A. R. G.

HOW TO MAKE A SUNBONNET

For a sunbonnet which is intended for use while working in the garden or among the flowers select such substantial materials as gingham, chambray and calico.

To make a sunbonnet with flare enough to keep from fitting too closely, cut the inner circle of the head-piece small and the outer edge, or circle, large. Cut the inner linings a little smaller than their coverings, to allow for seams on the gingham. For the inner linings take two pieces of light-weight Canton flannel, put the nap sides together and place between the two head-pieces of gingham. After ruffling and stitching the top, take one tablespoonful of clear starch, one half teaspoonful of borax and nearly one pint of cold water; starch in this, rubbing it well into the lining. Roll up and let stand for a half hour, then smooth out and iron dry. With care a sunbonnet made this way can be worn a whole season without again being laundered, and it will not "flop" over the face.

Mrs. W. L. Tabor.

TEACHING CHILDREN TO SEW

THE chief lamentation at a recent meeting of the "mothers' club" was the distaste which the small lady of to-day displays for all varieties of "plain sewing," and more than one mother declared that there ought to be some method invented for "teaching sewing without tears." This would probably be a good idea for small eyes and tempers, and it is not impracticable. In fact, the "sensible member" of the club described a sewing-school in one of our large cities in which poor girls were taught sewing by a method that could well be put in practice by all classes of girls.

A UNIQUE SEWING SYSTEM

This sewing-class for girls was held at a noted industrial school, where the "kitchen-garden" system of teaching children housework was first put in practice. But the sewing system which had its beginning here is of special interest because quite unique in its method. The sewing-classes in this industrial school for girls do not resemble ordinary sewing-classes. To attend this school a child must be very poor—poor enough to need the hot dinner furnished and other help it affords. Come up-stairs, past the door on whose front the word "kitchen-garden" is placed, behind which are mysteries that irresistibly attract children who have not penetrated them, to a small room where girls are assembling. It is a well-lighted room, with gray painted walls and oil-cloth wainscot of black and white. Pictures enliven it, and a clock on a high shelf ticks away hours that are very pleasant to the busy girls. Below it hangs sample work framed and unframed, and near these indications of active fingers this time-honored motto, "Let all things be done decently and in order," is placed.

TEACHING ON A LARGE SCALE

The ages of the class now assembling range from seven to perhaps twelve years, and that it is composed of children of very poor people is seen at a glance. The ribbonless braids and collarless necks, coarse dresses and shoes show unmistakable signs of poverty, but as a rule the faces and hands are clean. If not, they will be made so very promptly when the teacher comes. There she is now, a tall, slender woman who walks quietly in, gets out her boxful of work, and while waiting for the bell glances keenly about at her pupils. Some one's hair isn't combed, and the offender is sent with a small waiting-maid from among her companions to make it smooth.

The bell rings and the seats are quickly taken on low chairs around a table. The youngsters can tell why low chairs are best for sewing, too. Eager hands are held out for work, and each girl receives a bundle with her name marked in ink upon a little white thimble-bag pinned to the sewing. These unfolded all hands fall to sewing diligently, for their reward is great, and the sooner earned the sooner possessed. All garments when properly finished are put away in a store-closet, to be bought by the girls.

HOW THE GARMENTS ARE PURCHASED

"I should think they were too poor," some one exclaims. Yes, but the currency in this school has not the United States stamp upon it. Garments are earned by good marks, which are given for sewing, behavior, lessons in the school-room, etc. Bad marks cancel a like number of good ones. It takes two hundred credits to buy a petticoat, and five hundred will buy a dress. It is said that diligent pupils can earn ten and even fifteen good marks a day. So it is not impossible to purchase a dress with this sort of coin.

There is one kind of garment which seems to belong peculiarly to this school, and it is worth striving for. It is a patchwork petticoat, and is a most grotesque-looking garment, but being made of stout bits of calico and gingham outside and inside, with a layer of cotton between, is strong and durable. The petticoats were invented to utilize pieces of cloth employed for lessons in overhanding. Each day's work is inspected, and if not satisfactory must be undone.

SEWING FROM THE TRACING-BOOK SYSTEM

For beginners in sewing the teacher has devised a plan quite as unique as the kitchen-garden. Stitches representing all kinds of plain sewing are stamped on a piece of cloth one yard long and one half yard wide, and when a little girl has done the work on simply this piece of cloth she has learned to baste, hem, fell, aud all the rest of it. This resembles the tracing-book system of teaching writing. The girls cannot well help setting stitches right, for the places where they are to be put are there before them in black and white.

When the roomful of children is settled to work there is a busy hum of industry and an occasional hearty laugh as some one makes a mistake in English. Considering that most of them are of foreign parentage, and hear little English spoken at home, it is wonderful how well they talk. Presently a gong sounds, and work is quickly folded, rolled up and put away in a basket. A few taps of the teacher's bell, the clumping sound of coarsely shod feet, and the room is empty save for one or two little maids who linger to help put things in order for a new class.

FOR THE "ONE SMALL CHICK"

While this method of "teaching sewing without tears" may not appeal especially to the individual mother with the one small chick with a dislike for all kinds of needlework, it may offer some advantages even here. The same idea of samples for setting stitches may be used, and the marks of merit and demerit might also be carried out for the good or the poor sewing, offering a longed-for pleasure rather than an article of clothing as a reward for a certain number of good marks they endeavor to receive.

TO INTEREST THE ONLY DAUGHTER

Often where it has seemed a hopeless task to interest an only daughter in sewing it may be made one of her chief delights if she is allowed to form a "sewing club," inviting her little friends to join in the periodical lessons each week, for the club idea appeals very early to these small specimens of womanhood in these days, and it is well to turn it to good account. The mere fact that there is companionship and competition will help more quickly than anything else in forming an interest and accomplishing good results in the despised needlework known as "plain sewing." P. W. HUMPHREYS.

WITH A CANFUL OF SALMON

If possible open the can and remove the contents several hours before using.

To serve uncooked, remove all bits of bone and skin, drain off the oil, and arrange on a bed of lettuce-leaves, breaking the meat as little as you can. Garnish the dish with thin slices of lemon.

SANDWICHES No. 1.—To each cupful of solid meat add two tablespoonfuls of thick, sweet cream and a little salt. Work to a smooth paste. Spread thin slices of bread lightly with butter, and between two slices of bread place a thick layer of the prepared meat.

SANDWICHES No. 2.—To each cupful of meat add a little salt, one tablespoonful of lemon-juice and three tablespoonfuls of butter. Let this last be soft enough so the whole can be worked to a smooth paste. Spread the bread with this paste, using no butter.

SCALLOPED SALMON.—Heat one cupful of sweet milk, and when it comes to the boiling-point add to it one tablespoonful of flour and one tablespoonful of butter which have been rubbed together until smooth. Put the contents of a one-pound can of salmon minus bones, skin and oil in a baking-dish, and pour the sauce over it, shaking the dish to thoroughly mix the two. Cover half an inch deep with cracker-crumbs into which enough melted butter has been stirred to flavor them. Bake in the oven until the crumbs are a rich brown, and serve hot.

SALMON-LOAF.—Make a sauce as above, stir in one half dozen crackers crumbed fine, and just before taking from the fire four well-beaten eggs; then stir in a canful of salmon prepared as above. Pour into a baking-dish, powder with cracker-crumbs, and bake a light brown. HOPE DARING.

FOR SMALL CHILDREN

White pique is to be used very largely for children's "best" gowns this summer, and combined with embroidery one cannot resist its daintiness. It launders so beautifully and wears so long and so well that it would be an economical style of dress even were the cost high, which is not the case, however, as pique can be bought at very reasonable prices nowadays.

Our mothers can remember fifteen or twenty years ago, when we were children and wore dainty white pique one-piece dresses, and I should not be at all surprised if some of these selfsame dresses can be brought to light from an old trunk and put to practical use once more.

The little dresses of to-day are made in one-piece suits, whether for the little son or daughter, and whether made plain or combined with embroidery are daintily trim and attractive. E. L. H. R.

DISINFECTANTS

Amateur nurses should know that there is a distinct difference between a true disinfectant and a deodorizer; that while the former destroys or absorbs all infectious matter the latter simply cloaks over its offensiveness.

Again, many preparations sold under the name of disinfecting-fluids and capable of being employed in the deodorization and purification of offensive liquids, such as sewerage-water and the like, are not true disinfectants, and are of no value in the sick-room.

Probably the most powerful disinfecting agent is chlorine, either used alone or in combination with lime. One of the most effective ways of employing this substance is to spread a thin layer of chloride of lime on a plate and place it in the sick-room. Ordinarily the carbonic acid of the air will liberate chlorine rapidly enough to keep down infection and without causing any inconvenience to the occupants. When a more plentiful supply of chlorine is desired mix a little vinegar with the powder; this will cause the gas to be liberated freely.

The value of carbolic acid as a disinfectant is now placed beyond all doubt, and its free use often wards off disease. If farmers would employ it about their cattle-sheds its purifying effects would contribute greatly to the health of the animals. It is also a very valuable antiseptic, quickly arresting all putrefactive and fermentive changes.

Charcoal is very serviceable for removing fetid effluvia. Clothing or bedding having a disagreeable odor may be purified by being placed in a box containing charcoal. For destroying odor when there is no infection to be overcome, burning brown paper or fumigating with camphor, benzene, lavender or other odoriferous substances will usually be found effectual. But it must be remembered that these possess no virtue at all as disinfectants. E. K. MEGEE.

ABOUT SAMPLES

As so many FARM AND FIRESIDE readers live in small towns, villages and even smaller rural districts they must often find it difficult to procure different articles of dress mentioned in different numbers of the paper, articles such as dress-goods, trimmings, etc.

To these friends I would suggest the advisability of procuring their goods from large cities by means of samples. If you want a new gown of silk or satin, broadcloth or serge, lawn or swiss, send a request (preferably with a stamp inclosed) for samples of whatever line of goods you want to one or more of the large department stores of some large city. Many houses of this character cater very largely to "out of town" trade, as they call it, and it is only in rare cases that one meets with a discourteous or careless lack of attention. As a rule a full and up-to-date line of samples, with prices ranging always from the moderate to the expensive, will be promptly forthcoming upon request. From these it is a simple matter to make selection, and I feel confident that one can do better not only in a larger choice to select from, but also in point of price, even after the expressage or mail is paid. Packages weighing up to four pounds can be sent by mail, and the express charges on a small package are usually far less than the uninitiated person would imagine.

If you don't know the names of any firms in particular, although some in New York, Philadelphia and Chicago are probably familiar to most of you, I am confident that a request, with stamp inclosed, made to our "Household" editor, who is always kindly and courteous, would bring forth a cheerful response with the desired information.

E. L. H. R.

JUBILEE PUDDING

Slice down one half pound of stale sponge-cake, making the slices rather thin, and butter one side, spreading the other with apricot jam; put a layer of these slices, buttered side down, in a plain mold and cover with peeled and sliced bananas. When the mold is three fourths full pour in a rich vanilla custard and let it soak for one hour; then bake in a quick oven for one hour and a quarter (or steam if preferred), turn out and serve with the following sauce: Into one half pint of nice custard stir one teaspoonful of essence of vanilla, one half gill of brandy, one egg and one ounce of sugar, and when well blended add a squeeze of lemon-juice, and serve at once. This can be served cold if liked, only the brandy, essence and lemon-juice must be added at the last, when it is quite cold.

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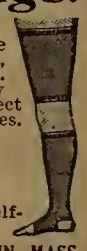

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THE WAY OF WISDOM

Hear, O my son, and receive my sayings;
And the years of thy life shall be many.
I have taught thee in the way of wisdom;
I have led thee in paths of uprightness.
When thou goest, thy steps shall not be straitened;
And if thou runnest, thou shalt not stumble.

But the path of the righteous is as the light of dawn,
That shineth more and more unto the perfect day.
The way of the wicked is as darkness;
They know not at what they stumble.
—Baltimore Methodist.

MODERN HEROES

There are some who think bravery died with the Romans, that art has been decaying since the end of the palmy days of the Greeks, that all the noble virtues have long ago ceased to find lodgment in the human heart. Such are pessimists, and they make life unwholesome for themselves and all whom they influence. The world is growing better all the time. There are more good people to-day than ever before. The best of virtues are more common than in any previous age.

The "Youth's Companion" tells of a young collegian, imbued with the pessimistic spirit, who was lamenting the decay of the higher virtues of the times. He had much to say now of Sidney and Sir Thomas Moore and other brave and chivalrous gentlemen, dead long ago.

"Where will you find such men nowadays?" he cried. "Nowhere. We are sordid and commonplace. We care for nothing but making money!"

Presently his father told the story of Walla Tonaki, the Navajo boy who was condemned to death two years ago by his tribe; but such was their confidence in his honor that he was pemitted to travel alone and unguarded hundreds of miles to fulfill an engagement, giving his parole to return and be shot at the set time.

"And he was there," said the squire. "The tribe was in waiting, and at the very hour set Tonaki appeared and quietly faced them ready for death."

Then Tom's mother recalled the horrible story of the burning of the Charity Bazaar in Paris, and of the Duchess d'Alencon, who, with the roof dropping in flaming fragments around her, when a way was opened through the shrieking, struggling mass for her escape, drew back, saying:

"My guests go first," and remained until her charred, dead body was carried out.

"Courtesy and high breeding in the old time touched no loftier mark than that," his mother said, with tears in her eyes.

Some one else recalled Prof. Max Muller's account in his "My Indian Friends" of a Christian convert, Goreh, among the Hindus. His father was a high-class Brahmin, obliged by his position to publicly curse his son for his change of religion. He loved his son, and to avoid the necessity of pronouncing the curse took a vow of perpetual silence. He retired into the forest and never uttered a word again.

"Here were a poor red Indian, a princess and a Hindu who could touch hands with the great men of past ages, Tom," said his father. "Human nature can rise to as great heights now as it ever did. And the opportunities come every day. Make ready to use them, and waste no time bewailing the golden age."—Christian Standard.

HOME INSTRUCTION AS A SAFEGUARD AGAINST VICE

Innocence and ignorance in regard to vice are no safeguards to a young man or woman in this age, when it is so evident on every hand, and no fond parent need flatter himself that his pure girl or boy will not sooner or later become subjected to improper conversation and influences.

Too often children are sent to schools which are the very hotbeds of temptation without a single word of reliable warning or teaching to guide them. How much more just to them it would be to send them out properly instructed than to leave these momentous questions to their schoolmates for settlement!

Youth is the time of life when the boy or girl hopes to develop into a physically beautiful man or woman. Then they have active intellects and ambitions for everything which is good and noble. No one can foretell what a boy will become when he is fully developed, and as a rule the child appreciates this perfectly well, so that he will under the stimulus of kindly encouragement seek the good and eschew evil if he understands the relationship of vice and its consequences. From an educational standpoint this is by far the most important period of life, for the mature man will almost invariably continue to show the same instincts and characteristics he had when a child, and a boy can no more postpone the developing of his character to his manhood days than he can the strengthening of his muscles. It is worthy of remark that a belief constantly inculcated during the early years of life, while the brain is impressible, appears to acquire almost the nature of an instinct, and the very essence of an instinct is that it is followed independently of reason. How important it is, then, that a child should start out with healthy inclinations and not by great mistakes!—From "Heredity and Morals," by Dr. James F. Scott.

HOW HE PAID HIS DEBT

William Scott, the Vermont boy whose life Lincoln saved after he had been condemned to be shot for sleeping at his post, said of his interview with the president, "He stood up, and he says to me, 'My boy, stand up here and look me in the face.' I did as he bade me. 'My boy,' he said, 'you are not going to be shot to-morrow. I am going to trust you and send you back to your regiment. I have come up here from Washington, where I have a great deal to do, and what I want to know is how you are going to pay my bill.' I said I didn't see how, but I was sure I would find some way—if I lived. Then Mr. Lincoln put his hands on my shoulders, and looked into my face as if he were sorry, and said, 'My boy, my bill is a very large one. There is only one man in all the world who can pay it, and his name is William Scott. If from this day William Scott does his duty, so that, if I were there when he comes to die, he could look me in the face as he does now, and say, I have kept my promise and I have done my duty as a soldier, then my debt will be paid. Will you make that promise and try to keep it?' I said I would make the promise, and with God's help I would keep it. He went away out of my sight forever. I know I shall never see him again, but may God forget me if ever I forget his kind words or my promise!" Mr. Chittenden, who had a personal share in bringing the case of Scott to Lincoln's attention, and who watched his subsequent career, says he became "the general favorite of all his comrades, the most popular man in the regiment, and modest, unassuming and unspoiled by his success." He died risking his life in the rescue of wounded men, "being shot all to pieces."—Endeavor World.

AT THE END OF THE JOURNEY

A small boy sat quietly in the seat of the day-coach on a train running between two of our Western cities. It was a hot, dusty day, very uncomfortable for traveling, and that particular ride is perhaps the most uninteresting day's journey in our whole land. But the little fellow sat patiently watching the fields and fences hurrying by, until a motherly old lady, leaning forward, asked, sympathetically:

"Aren't you tired of the long ride, dear, and the dust and the heat?"

The lad looked up brightly and replied, with a smile, "Yes, ma'am, a little. But I don't mind it much, because my father is going to meet me when I get to the end of it."

What a beautiful thought it is that when life seems wearisome and monotonous, as it sometimes does, we can look forward hopefully and trustingly, and, like the lonely little lad, "not mind it much," because our Father, too, will be waiting to meet us at our journey's end.—Selected.

All great men have a curious undersense of powerlessness, feeling that the greatness is not in them, but through them, that they could not do or be anything else than God made them. And they see something divine and God-made in every other man they meet.—Ruskin.

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The Day After Death

By Hezekiah Butterworth

CHAPTER VII.—CONTINUED

WE RUSHED back to the kitchen, and we found it easy to break the rotten panel about the lock. We entered the room, and found the old man lying on the bed as before. The flush on his face was going out, but he gazed on us in an uncertain way. Then his mind cleared.

"I am dead to this world now!" he said. "Go and tell my neighbors that I have not a dollar in the world save the worthless roof over my head. All my yesterdays are past. If I have any friends with human hearts that belong to the better life, tell them to come to me, for I have nothing to give them in this world—not a dollar! Our only true friends are those who come to us when we have nothing to give!" He started up as before, with the same wild look, glaring on his kinsmen. "And you belong to the lower world where they exchange gifts! I have gone from you already—go!" He was becoming delirious again; his eyes shone with a withering light. "Go, go! Would it do you good to have my savings? You have laughed in the dying face of a poor old man who never did you harm! Go, go, never to return again to this old roof unless you come with better hearts! Go out into the world of heartlessness and selfishness, and never speak my name again! Go, go, go with the uncovenanted race—go! My yesterdays are gone forever! To-morrow will remain forever! Go!"

He fell back. He lay still. His eyes closed. His lips were compressed.

I said, "He is dead!"

The sleigh-bells jingled away at midnight as if frightened.

CHAPTER VIII.

But he was not dead. An hour passed.

"I have had a delirium," he said. "A horrid dream. Call the doctor."

I went out for the doctor, who hastily returned without wig or snuff-box. The old man told him a dreadful dream he had had about burning bills, and pointed to the dying fire, then sank into sleep.

"It was not a dream," I said to the doctor.

The doctor looked up the chimney. He rested his hand on the head of a fire-dog and reached up into the flue. There was much soot there, and he drew out of it some half-burned papers that seemed to be held together at the end. He turned to me and said, "I will take care of these; they may be recovered," and then went away.

"Recovered?" I wondered what the ending of this strange situation would be.

It was very still after he went. The house seemed like a lodge between the visible and invisible world, between the shadows of the yesterdays and the light of the long to-morrow. The clock struck two, three, four and five.

Then the old man revived again. "Where have I been?"

"You have been delirious, and have destroyed the mahogany box."

"How? You don't say that!"

"Yes; I could not prevent it."

"That bewilders me. Hold! Then I can have a pandowdy—I am poor now!"

I dropped my eyes to the floor again. What was it in the old home dish that so held his heart? How he was longing for something human. But an apple pie of old traditions, what was there human in that?

As I reflected he said, "Dead, dead, dead! Here I am dead! The world has gone by like a stage-coach; my hands are withered and empty. One word has gone out that I want a pandowdy, and another that I am dead. I wonder how it seems to the spirit of a dead man on the day after death! I will go back to my bed and draw the curtains, and listen to those that come to make a pandowdy, thinking I am alive, and to those who come to prepare my body for the grave, thinking I am dead!"

He sank upon the bed, drew the bed-curtain, or valance, but in such a way that he could see out of the window.

And so the living dead man waited to see how the world would seem to him on the day after death. Was it a good world? Was it a bad world? Must one die to know?

CHAPTER IX.

To-morrow! The sun rose over a broad snowscape of bending pines which scintillated with crystals. The frozen dreariness turned into a sunlight of life, and the icy weirs glistened in the wide hollows among the hills.

The old man woke again, and his mind was clear. He wondered if it were all a dream. He arose, tottered toward the fire, and looked into the cupboard over the shelf for the mahogany box. The box was gone. He lifted his hands and stood as one bewildered, his hand and his forefinger in an interrogation-point in the air.

"Heaven forgive me if I have done wrong!" he said. "I have not long to stay here, but that money might have made some poor soul happy. No one should have need of anything in this plenty-stored world; but people suffer amid plenty, and the church-bells ring out in vain. This may be my last year here. Few people ever thought of me on such days when I had little laid by. I wish I could break a pandowdy once more with those who are gone!"

Still a pandowdy—the old family pie that used to be eaten when all hearts were as one.

Some pigeons flew down at the window.

"I will let the birds in," he said; "but I have little left to give them. It is good for them to come in and share with me my last food. I will breakfast with the birds."

The report that the old man had destroyed his bank-notes and was dead spread that morning through a part of the country village. But the chore-boy had carried his message to some of his old neighbors that he wanted the neighborhood pie once more.

Uncle Halliday looked out on the snowscape. The top of the hill gleamed before him, and the form of a decrepit negro woman in a "camlet" shawl rose over the ridge and came plodding down to the cottage.

"What can she be coming for?" he asked, pressing his thin face against the pane where the frost was melting. "To be revenged on me?" he added. He laid down as dead behind the curtain.

The old woman did not knock at the door; she came in panting. She had a basket on her arm.

"I heerd dat Uncle Halliday had lost all," said she to me. "I'm proper sorry fo' him, down in de deep place in my ole heart."

The old man parted the valance.

"Cloe, Cloe—my old enemy Cloe! I always remembered you the day before Thanksgiving in the old days before you began to misjudge me, in the far-off yesterdays! Cloe, it is all over! I died to this world last night, and I have no longer anything to give!"

"You nothin' to gib? But I hab, Massa Halliday."

"What, Cloe?"

"Somethin' to gib you. I 'member long ago."

"Oh, Cloe, Cloe, I never gave you anything, or any one, in the hope of a reward!"

"I am not lookin' fo' any rewa'd," said the old woman.

"No reward here?"

"No; 'pon my soul, Massa."

"Nor hereafter?"

"No; de only rewa'd dat I hope fo' is what will come to my own soul, an' I hab giben dat to God—I hope it will be a pearl. I was yo' enemy, but you was my friend befo', an' when I heerd dat you had lost all my heart changed to de ole heart. I'm proper sorry. You need me, an' I pity you. When I heerd dat you wanted de ole home pie, I come down yere cos I pity you, an' I ken make a pandowdy—none like mine, but, bless yo' soul, I haven't all de fixin's, I'm too poo'; maybe I will have 'em some day. If so, I'll 'member you an' bring you some on my spatter-dish."

"Cloe, you belong to the other kingdom, that of the human side. We meet on that other side to-day. I am glad that you have come. Stay here, and don't tell any one whether I am living or dead. The human heart is better than I thought it was. Land of goshen! Look a-yonder. Who is that coming now?"

He was looking up the hill again. The sunlight fell through the open curtains. The crows were cawing as if laughing in the blue air that arched the highway. Three little children seemed drifting down the beaten path in the middle of the road. They came to the door, and were admitted. They were the children of his enemy Job, the selectman, who could not induce him to vote his will. Uncle Halliday dropped the valance again.

"Father has heard," said one of the children to me, "that Uncle Halliday wants an old-time dinner, and he said that if he were to come himself he might not like to see him, so he sent us to you with a little money for him."

Uncle Halliday's head appeared, and one of the children asked, "Have you lost anything, Uncle Halliday?"

"Yes, I have lost the earth; but I could get along without it if I had friends like your father. I am glad that you came to see me on this lovely day. Your father misunderstood me; he sees me as I would be now. Here, give the purse to Cloe. She can make a pandowdy. How beautiful it is to be on the other side of life! There is no day like that after death. Men see us as all then."

He looked up the hill again and said, "Israel in Egypt! What do I see?" He gasped, "It is—it is—how she used to berate me in the yesterdays!"

A cart appeared there, with an old woman driving; a poultry-wagon. It was the poultry-woman who had turned her head from him when they passed by. Suddenly the crate tipped out of the back of the rude cart as it lumbered over the ridge. There flew out of the crate a goose, a turkey and a guinea-hen. The old woman got out, and in trying to catch the goose she lost the guinea-hen, and in attempting to secure the turkey the guinea-hen flew into the savins, squawking, "Go back!" She was too decrepit to follow them.

"There flew out of the crate a goose, a turkey and a guinea-hen"

"I wish I were able to go out and help her," said he. "She cannot be coming to see me."

The old poultrywoman, forlorn and empty-crated, came to the cottage, her goose, her turkey and her guinea-hen gone.

"I heard that you wanted a real old-time dish," said she to Uncle Halliday, whose head was out of the valance. "I used to be your enemy, but I am not so now. I do pity you. I started to bring you some of my birds because I heard that you were in need. 'Need,' the chore-boy said that. That went right to the quick of my heart in the sacred spot when I heard that you were in need. But see, I have lost the birds, and am too old to catch 'em. I have brought you only a handful of live feathers, but I thought I must come and tell you that I am your friend now, and will always be, now that you have lost all."

"I am sorry that the birds have lost their feathers," said the old man. "But I am glad that you have come."

Next came those who had been told that Uncle Halliday was already dead.

Sleigh-bells. He peeped from the window. It was his five undutiful young relatives who were now at the door.

"They are coming to prepare for the funeral, I suppose," said he. "Go into the next room," he continued to those present. "Don't one of you mention that I am living. I wonder what they will have to say now that they think I am gone for good!"

The five came in, glanced at the closed valance and the silent people, and sat down by the kitchen fire in hearing of Uncle Halliday.

"I pity the old man now," said the tall nephew. "There is little I would not have done for him had he been poor. It was our fault that caused the delirium. Oh, but he was a good man; he had to save to keep him from being a burden. We are all so sorry that we did not use him well. We are all going to do everything we can to make for him a good funeral—a preacher from the city, a choir, flowers and all. He was a good man. We don't see people in their true light until they are dead, then the true heart comes back."

"He was a good man," said all five.

"And as he died almost penniless it is a right noble funeral he shall have to commemorate his virtues. Oh, Uncle Halliday, Uncle Halliday! We only care for him now for what was in his heart!" said the eldest niece.

They all praised Uncle Halliday. They recalled all the virtues of his long life, which would have filled a catalogue of perfection.

Uncle Halliday listened until he could endure to be dead no longer. He rose up and parted the valance and came sweeping into the room where his young relatives and old friends were.

"This is such a good world at heart," said he, "that I can't bear to stay on the other side any longer. I've come back!"

The five relatives leaped to their feet with hand-claspings of consternation. Then they stood as speechless and white as statues.

"I ain't dead—no, no, thank heaven, thank heaven, but I have lived to enjoy the day after death! Do I hear my ears? This is a good world; ah, yes, too good for such as I, who have so misunderstood it all! I wish I had my bonds and coupons now! Do you want to know what I would do? I would make a will in behalf of my own; but look at my hands, they are empty!"

He continued as addressing returning petrifactions. "You love me because the intention of my heart was good, and have come to honor me now when my hands are empty! My bonds, my bonds, would I had my bonds, now that my eyes are open! If we could only see the day after death how differently we would live!"

"Your bonds can be recovered, Uncle Halliday," said the doctor. "I have the stubs."

"Recovered—what do I hear? Then, Cloe, you make the pandowdy."

Cloe made the old family pie. They ate it after the manner of colonial hospitality.

"And now, Uncle," said the eldest nephew, "you will go home with us and live with us; you have seen our hearts and we have seen yours."

"On the day after death!" said he, trembling. "Yes, on the day after death!"

THE END

JENKINS' FOLLY

By Hester A. Bassett

JENKINS' FOLLY was the unromantic name that clung to the quaint old mansion which Colonel Jenkins commenced to build at the close of the war. The site was an elevation of land on the banks of the Potomac in what was then known as Georgetown—now West Washington—and it commands a fine view of the gateway leading to Arlington, with the "Short Hills" of the Blue Ridge beyond.

Tourists invariably wonder why such a charming place should have fallen into decay so prematurely and why it should bear such an absurd name.

According to local tradition it was a common conjecture for many years that the Colonel was not himself; in other words, that his mind was unbalanced, as he was often heard to make strange remarks for which no one could account. For instance, he would say, with great pomposity, "As a member of the proud family of Jenkins I must not let the name be forgotten, but will build a dwelling-place worthy of it."

Now, it was a well-known fact that the resources of the Colonel had been greatly reduced during the difference between the North and the South; therefore, people listened to his speeches with but little credence, thinking he had so long lived in opulence that he did not realize the actual state of his financial affairs. So when the foregoing utterance was made his hearers would exchange significant smiles and nods, and occasionally they would appear slightly bored. Every one was amused, however, when the prophetic speech had the appearance of being fulfilled, particularly as none of the townsfolk had been consulted, and from the hour that the foundation of the house was laid the place was designated as Jenkins' Folly—a misnomer by no means, as was afterward proven.

As soon as this task was completed the workmen were dismissed peremptorily, and a year or two elapsed before the framework was erected. Again there was a lull, and for many months the gigantic skeleton remained untouched, looking down upon the National city, "the observed of all observers."

This spasmodic method of building was continued for five years, and during the process the affairs of the Jenkins family were discussed until the subject was quite threadbare. In the estimation of his fellow-townsmen the conclusion of the whole matter was that the Colonel was "stark mad," and it was generally supposed that he stinted himself and his family to the last degree of penury in order to gratify his pride and ambition.

The years passed, bringing inevitable changes. The Colonel's three daughters married against

his wishes, and he never allowed their names to be mentioned afterward; the son was killed in a hot-headed duel; the mother died of a broken heart—and genteel poverty, some said.

This series of domestic tragedies seemed to give the Colonel a fresh impetus, for he went to work with new vim, finished a room in the mansion, and took possession of it as soon as completed. His two devoted negro servants remained on the adjoining plantation and continued to "care for Ole Massa," whom they had served for forty years. And thus the Colonel lived like a hermit, refusing to see even those who had been his most intimate friends, until at last people ceased to call. His lank figure grew more and more attenuated as the weeks and months passed, his face and hair became thinner and whiter, his elastic step grew languid. One morning the Colonel failed to appear at his usual breakfast-hour, and when Sam went to his master's room he found the latter sitting before his writing-desk apparently asleep. The old negro tried to rouse the sleeper, but his efforts were futile, for, as he afterward explained, "De good Lawd done call de Colonel to his eberlasting sleep."

The funeral was pathetic indeed, for the two servants were the only mourners, and when the clergyman said "Ashes to ashes" the silence was painfully oppressive. It was then that the few people who had followed the Colonel to his last resting-place realized that "Jenkins' Folly" was the only monument that would ever be erected to "the good old name."

The sleepy people in the vicinity of Georgetown were rudely awakened one morning by incessant pandemonium-like sounds which, to their half-stupefied senses, were inexplicable. However, it did not take long to ascertain the cause, and it is doubtful whether such a state of excitement has ever been indulged in by these sedate inhabitants as prevailed that bright spring morning.

"Jenkins' Folly" had once more been taken possession of by a force of carpenters, who pounded their hammers in a most decisive manner, and who really seemed to be enjoying the novelty of the sensation they were creating. People loitered about the place all day. Several more courageous and persistent individuals plied questions to the workmen, who stolidly refused any information; therefore, the matter was a topic for much idle speculation.

The unfinished house with its baronial aspect had remained unoccupied since the death of its owner, ten years before, consequently no one ever thought of it as a place of habitation. Indeed, it had come to have quite a reputation as a haunted house, and some people even went so far as to declare that three women dressed in deep black had been seen walking on the upper terrace in the dead of night. No one had ever taken the trouble to prove or disprove this statement, but the result was effectual. A wide berth was given to "Jenkins' Folly." It had, no doubt, been a most convenient abiding-place for tramps, and probably they were as much startled as their more respectable neighbors at being so unceremoniously usurped.

While the miracle of spring was going on all over the land a lesser miracle was being performed at the old place which had so long been deserted. Strange to say, the majority of people were blind to the former phenomena, which really concerned them far more, but they were wholly alive to the temporal metamorphosis. Silent-tongued workmen plied their hammers still more vigorously; the decorators worked as if their lives depended upon speedy execution, and by the first of June the house was ready for occupancy. The architect had scarcely deviated from the original plan, which was colonial in style, and the mansion was admirable in every detail. Great white pillars gleamed like marble in the background of leafy foliage. A fountain on the smoothly shaven lawn sprayed the basin of water-lilies and "parrot's-feathers," while the fragrant magnolias exhaled their delicious odor. "Jenkins' Folly" was ready and waiting for a master.

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The Hodges had not been settled in their new home long, but they had become much attached to the place, and they often congratulated one another on having so promising an outlook for the future. While traveling abroad a few months previous they had been greatly surprised at the receipt of a letter from Mr. Hodge's lawyer, stating that the Jenkins property still remained unclaimed. He also said that diligent search had been made for the will, and as none had been found and no heirs appeared to claim the estate it would by right of law go to Mr. Hodge as next of kin. The relationship in question was so remote that it had always seemed like a myth to the Hodges, and therefore the information was all the more startling. However, after some correspondence with his lawyer, Mr. Hodge decided to take the advice of the former and come to America at once, for, as the lawyer said, the property was far too valuable to remain unused.

Even birds of passage grow weary and long for their nests. It was so with the Hodges, and if there were any misgivings at leaving Europe they appeared cheerfully resigned to settling down. New-comers are always the object of more or less interest, and the Hodges were not exempt. Nevertheless it was somewhat amusing to witness the manoeuvers of the more staid residents, who still considered their circle of families the only "true blue." They held aloof from the new neighbors with strict conservatism, though had the real truth been told it was from a decidedly superstitious dread of the place, that had always seemed uncanny to them. The Hodges remained blissfully ignorant of the real cause of the reserve, and they had a quiet time the first few months, but after that affairs came to a climax and were lively enough. Meantime Mildred and Lois assured their parents that they would make up for the dull time the coming winter when their brother Roy was at home. The latter had remained in Heidelberg to take his degree, and expected to join the family later in the season. Social life was out of the question until they were all together; besides, the weather was unbearably hot.

One evening Mr. Hodge and Mildred went for a drive to Chevy Chase. Mrs. Hodge and Lois declared that they felt too indolent to make the effort, and remained at home instead. They sat in the little vine-covered arbor at the rear of the house watching the boats glide over the water like miniature gondolas.

Neither spoke for some time, but finally Lois broke the silence. "I declare, mama, it is really too bad that this lovely place is known by such an odious name. I think that we should rechristen it and insist on the new appellation being used. 'Jenkins' Folly!' Bah! there is something positively vulgar about it. But the old Colonel knew what he was about when he selected this site."

"It is a dear place," murmured Mrs. Hodge, approvingly, "and I do hope we will never be obliged to leave it. Your father remarked this morning that he feared the rightful heirs might turn up some day, and if they do we would certainly be loath to leave."

"Oh, well," said the girl, carelessly, "let us not borrow trouble; it is ours while we are here."

"I believe that there is going to be a thunderstorm!" exclaimed Mrs. Hodge. "Just see how dark it is becoming! Your father and Mildred will repent of their ambition if they do not hasten."

Peal after peal of thunder like the roar of artillery came nearer and nearer. The sky that was clear a few moments before grew black as ink, and the intense darkness was only relieved by the vivid flashes of lightning that illumined the heavens with wonderful pyrotechnical splendor. Mother and daughter arose and went into the house, but not a moment too soon, for just as they entered the library a flash of lightning was followed by a loud report and a streak of light ran down the side of the room. The two women were half paralyzed with fear, and Mrs. Hodge fell to the floor in a dead faint. This brought the terror-stricken Lois to her senses, and she touched the bell. It was answered by a servant, who appeared upon the scene wringing her hands and crying.

"Hush!" commanded Lois, sternly; "come and help me lift her to the sofa!"

The maid did as she was bidden, and the two chafed the cold hands of Mrs. Hodge until she commenced to revive. When Mr. Hodge and Mildred returned an hour later Mrs. Hodge had recovered, but was still weak from the nervous shock. Not wishing to startle Mr. Hodge and Mildred they made light of the affair, but when they visited the corner of the room where the lightning had done its work they all realized what might have been and were glad that it was no worse. The bolt had passed directly through the side walls, describing a circle, then straight through the floor, leaving a hole scarcely an inch in diameter. This was the only damage that was visible.

Mrs. Hodge never quite recovered from the shock, and for several weeks afterward was unable to leave the house. Her physician said that it was nothing serious, but advised perfect rest until she became stronger. Mrs. Hodge's maid was quite devoted to her and scarcely left the house, but one evening she approached her mistress and asked for leave of absence. "I'm sorry, ma'am, but my mother is sick, and has sent for me, or I wouldn't think of leaving you. And if you please, may Sara go with me? It will be late when I come back, and I am afraid to come alone."

"Certainly, Annette," responded Mrs. Hodge, cheerfully; "you have been a good, faithful girl, and Miss Lois will remain with me this evening. Be sure to see that the doors are bolted before you go."

Mrs. Hodge was inclined to be timid, and when she knew that she and Lois were all alone she said, somewhat nervously, "I really wish that Annette had not asked for Sara to go with her, but I did not have the heart to refuse so simple a request, so I suppose it is all right."

"Of course it is, mama," responded Lois, cheerfully. "I think it is no end of a lark to be independent. Heigh-ho! there goes the door-bell already."

"Be sure to fasten the chain on the door until you find out who it is, dear," called Mrs. Hodge after the retreating figure.

Lois returned in a few moments, followed by a young man, who was greeted cordially by Mrs. Hodge.

"Good-evening, Mr. Langley," she said; "we are especially glad to see you this evening, for we are alone. Mr. Hodge and Mildred are like the Siamese twins, and they have gone for a spin on their wheels. Lois is my stay-at-home girl these days," she said, with a fond look at her daughter. "By the way, Mr. Langley, we thought you had quite forgotten us, and here you are dispelling the illusion."

"Now, Mrs. Hodge, please don't be too hard on a fellow. True as my name is Homer Langley I have wanted to come here all the week, but I did not have a real good excuse until this evening, and you see as it is I came very near forgetting it. Mother wished me to be the bearer of this missive."

Mrs. Hodge took the note he handed her, and said, with a kindly smile, "You know, my dear boy, excuses are not necessary, for Roy's friends are always welcome to our home. Daughter," she continued, "if you will bring me my writing-pad I will sit right here and answer this."

Lois settled her mother cozily, then adjourned to the library with her companion.

"Do you know that I haven't been here since that terrible storm when you and your mother had such a narrow escape?" queried the young man.

"That spot was the target," responded Lois, lightly, pointing to the corner. "The damage was so slight," she continued, "that papa has neglected having it attended to, and we always keep this rug over the place."

"Well, that is a neat job, isn't it? A carpenter could not have done better," said Mr. Langley. "By the way, have you heard from Roy lately?"

"Oh, yes; we had letters from him to-day, and as this is my birthday I was favored with a personal note brimful of brotherly advice. This diamond ring also came from the same source. Isn't it a beauty?" she exclaimed, as she slipped it from her finger and held it under the gas-light for her companion to admire.

"Indeed it is!" was the hearty response.

Lois was about to replace it on her finger when a noise in the room above startled her and the ring fell to the floor. "What do you suppose that was?" she asked, as she stooped to pick up the ring.

"A ghost, maybe!" exclaimed the young man, playfully. And Lois, laughing at her own discomposure, soon forgot the noise in searching for the ring, which in some inexplicable way had rolled out of sight. "It must have dropped into this hole," she cried, ruefully. "If I were a bit imaginative I might feel uncomfortable. One thing is certain, I can't sleep a wink to-night unless I find my ring. Do you think you are equal to the occasion?"

"Most assuredly, fair lady," he gallantly replied, "if you will be so good as to furnish me with a hammer. This board has evidently been taken up before, for it is not very secure. A queer old paneled floor, isn't it?"

"Yes, it is. This is the room the old Colonel occupied for so long, and is practically unchanged. Papa liked the floor so well that he simply had it rewaxed and polished. That odd piece of furniture was the Colonel's," she said, pointing to an antique mahogany desk. "It always stood right here, they say, and he died sitting on this very spot."

"And now for the hammer, fair maiden; we will see if we can get this board up without loss of life or property."

"Be careful, sir; do not become tragical," said Lois, mimicking his tones to perfection. "By the way, I think I had better tell mama what we are doing." In a moment she returned and found the young man examining the board.

"I have changed my mind about the hammer," he said. "I think a chisel is what we need."

"All right," responded the girl, as she led the way to the butler's domain. "I don't know the difference between all of these tools, but one of papa's hobbies is a well-furnished tool-chest. There, sir, John will never know that we have invaded his quarters if we bolt the doors as we found them."

They went back to the library and Lois sat down to watch the experiment. "Mr. Langley, I think it is just too bad that this place has such a meaningless name attached to it. I told mama not very long ago that I thought we ought to rename it. Can you not suggest something?"

"How would Magnolia Hill do?"

"Oh, that is too stilted!"

"Well, then, 'The Hodge Lodge.'"

"That sounds awkward."

"'Kismet' would be quite appropriate, wouldn't it, for that strikes the poor old Colonel—peace to his ashes! He certainly would turn over in his grave if he knew all the ghost-stories connected with the place."

"Ghost-stories!" exclaimed Lois, in a surprised tone. "I never knew that; let us not tell mama, for she is frightfully nervous and has a horror of anything bordering on ghostdom."

Then lowering her voice she continued, eagerly, "I have always had a desire to live in a real haunted house, and do you mean to tell me that this one has the reputation of being the abode of disembodied spirits?"

The young man noted the look of mirth in the eyes of the girl, but in spite of the fact he responded, rather reluctantly, "Well, yes; but I supposed that you were aware of the fact or I certainly would have refrained from even mentioning the subject. But I know you have too much good sense to be startled at my nonsense."

"Certainly," was the disdainful reply. "I would like to have the pleasure of meeting a ghost personally; I would offer to shake hands with it, but I presume I'll never have such good luck."

"Upon my word, you are no coward, and you make me feel like wishing you success. Would it be exactly proper to say, Miss Hodge, I trust that your desires may be speedily gratified, that you may soon have the pleasure of meeting a real live ghost? This board is more secure than I at first thought," he added, wiping the perspiration from his face. "Maybe I had better get the hammer."

"Lois!" called Mrs. Hodge.

"Yes, mother dear."

"Will you run up to my room and get my smelling-salts?"

"Do you think you can find your way to the pantry alone, Mr. Langley?" said Lois. "If you can I'll go up-stairs for mama right away."

The young man assented, and she went on her errand. Just as she started to leave her mother's room she was confronted by three women, who stood in a semicircle in front of the door. Lois felt as if she were glued to the spot for an instant. She had no voice to scream; besides, she knew that she must not alarm her mother. Numberless fancies flitted across her brain. Was she dreaming, or was she dying? Would Mr. Langley come in search of her? She could hear him pounding in the room below, and still the women stood before her, oppressively silent, their colorless faces never moving a muscle. Lois pinched herself to make sure that she was awake.

"You no doubt wish to see the servants," she said, slowly, in order to control her voice. "They have gone out for the evening, but if you will allow me to pass I will find out when they are expected to return." Still no sound. The three women stood as motionless as statues. "Pardon me," exclaimed the girl, sharply, "you are detaining me needlessly! If you do not allow me to pass I shall scream for help!" Then the heads moved in a mechanical, clock-like manner, the long black plumes on the black hats trembled, and the three women regarded one another silently.

"I shall give you one more chance," said Lois, sternly, "then I shall call for help!" At this they turned their faces toward her, threw back their heads, and shrieked fiendishly—a muffled, haffled cry. Lois did not wait for more, but rushed past them down the stairs and dashed into the back parlor.

Mrs. Hodge was lying on the sofa half asleep, but she awoke when Lois entered the room, and said, "Why, you have been gone such a long time, child. I must have fallen asleep, for I had a bad dream. It seemed as if some one screamed, and that awoke me."

Lois waited to hear no more, but ran into the library, took Mr. Langley by the arm and unceremoniously pulled him after her to a position at the foot of the back stairs.

The young man was so astonished he did not know what to say, for usually Lois was calm and collected.

"For heaven's sake, child! What is the matter? Have you been frightened?"

"Oh, I can't tell you now," and she shivered; "but don't let any one pass you if they come down-stairs." Again she was gone like a will-o'-the-wisp. The girl was not afraid now, and she determined to face the cowardly creatures. She went up-stairs, but the house was as still as the grave. Then she went down the back way, and met Mr. Langley at his post. "Did they come down this way?" she demanded, breathlessly.

"Poor little girl," he said, soothingly, "I talked ghost-talk to you until you are fairly beside yourself. What made you scream so?"

"Homer Langley, I did not scream! I am not beside myself! It was those dreadful women!"

And then the brave Miss Hodge buried her face in her hands and cried. Manlike, Mr. Langley was perplexed, but he said nothing until she was quieter. Then he remarked, encouragingly, "I found your ring, and now tell me your story."

Lois gave a vivid recital of the whole thing. At first the young man was inclined to think that their conversation had worked her up to a highly nervous state, and that she was the prey of a too realistic imagination. He blamed himself mercilessly, but before the girl had finished he realized that the affair was not an imaginary one. "I can see those women," said Lois, closing her eyes, "just as plainly as if they were standing before me now!"

The young man was silent for a moment, then he said, "If it will be any satisfaction to you I would like to tell you that I, too, saw your visitors." Lois looked relieved, and he continued, "Just as you started up-stairs I went out to the tool-chest; as I was returning I saw three women dressed in deep black. Their movements were so nonchalant that I supposed they were servants."

"But we have only two women servants," responded Lois, quietly. "Explain it if you can."

"I cannot," said he, smiling, "and I am not going to try. But let me show you another mystery," and they went into the library. The board had been removed and stood on end by the fireplace. In the cavity between the stringers was a good-sized box, which was padlocked. "J. D. J." was printed on the cover. That was all.

"Will wonders never cease?" ejaculated Lois. "Surely that must be the box which contains the Colonel's private papers." Mr. Langley gingerly lifted the receptacle from its hiding-place and replaced the board without nailing it down.

When the servants came home there was another scene. Fortunately Mrs. Hodge had retired and was not aware of the excitement, which by this time seemed quite contagious. Mr. Hodge and Mildred were incredulously listening to the story of Mr. Langley and Lois when Annette and Sara appeared. The latter acted as spokeswoman and was exceedingly angry. "Some one has been playing tricks on Annette and me, and we won't stay here another hour!"

"What do you mean, girl? Out with it!" said the master.

"If you don't know," exclaimed the girl, vehemently, "go to our room and see!"

Mr. Hodge gave an impatient exclamation and went up-stairs, timidly followed by the members of the frightened household. Every article of furniture in the servants' quarters had been removed, and sketches of cross-bones and skulls decorated the side walls and the floor. They all stood perfectly motionless until a sharp, quick shriek aroused them. Annette and Sara marched grandly out of the room and down the broad stairs. No amount of persuasion could induce them to remain. There was not much sleep in the Hodge household that night, and the next day a force of Pinkerton men took quiet possession of the house. In fact, it was so very quiet that Mrs. Hodge knew nothing of it; for, as good fortune would have it, she was unable to leave her room for several days. Annette's absence was excused on the plea of illness (which was partially true), and Lois stayed almost constantly with her mother. The missing furniture was found in the garret, but that was the only clue to the mystery. For six months the detectives worked at the case, and at the end of that time were no wiser than they were at the beginning. Any number of solutions were offered, but all proved unfathomable. It seemed quite probable that some friends of the servants had pre-arranged the thing as a practical joke; but even if this were so, where did they gain entrance to the house? Another conjecture was

that the three women were the daughters of the Colonel, who knew of the concealment of the tin box, and were doing a little private detective-work on their own account, not wishing to appear openly. This explanation seemed too improbable, for had the box been the object of the strange visit they doubtless would have been more quiet.

Suffice it to say that the missing will was found, and it stipulated that in case of the non-appearance of the legal heirs the property was to go to Mr. Hodge and his descendants. Truth is always stranger than fiction, and it really transpired that the old Colonel was a miser, for there was a fortune in the mining stocks and bonds secreted in the tin box. He had probably been fearful that his life would not be safe if the fact were generally known, thus his eccentric and hermit-like life.

A few months after the discovery of the will there was a grand wedding at the Hodge mansion, and the fair-faced Lois was the winsome bride. The name still clings to the place in spite of all the efforts to introduce a new cognomen, but the three women in black never appeared again to disturb the equanimity of the occupants of "Jenkins' Folly."

MENIER'S ANTICOSTI

When a man takes a bit of land that has remained idle and unproductive since the world has known it—a bit of land say of two million acres, or about three times the size of the average European principality—and through the efforts of his brawn, or of brawn controlled by him, converts it into a garden-spot and a source of good to the world in general, he is regarded either as a man of commercial instincts finely developed or as a philanthropist. He may be both.

Henri Menier, of Paris, is both.

From France to the island of Anticosti, in the mouth of the St. Lawrence River, is a far cry. Geographically the distance between them is about two thousand five hundred miles, but in climate and in appearance and in all the various attributes of a country they are antipodal. The one is bright, gay, cheerful, sunny and civilized—in fact, "La Belle France;" the other drear, cold, ice-bound in winter and almost unsettled. There is no affinity, no purpose, no taste in common between the two; yet in the past few years the money, the talent and the science of a son of one have been poured out for the benefit of the other.

In 1895 the name Anticosti was barely known to Henry Menier, of Paris. To-day Anticosti is the subject of his waking thoughts and of his dreams.

In 1895 the shores of this island, which stands like a monstrous tooth in the mouth of the mighty St. Lawrence, knew only the footprints of occasional fishermen or of the few settlers who had ventured fortune along the sands; to-day Anticosti boasts a thriving town built and conducted on modern principles. Besides, quays and costly breakwaters and important canning-factories are to be found there.

Until five years ago no human being had forced the woody barriers of the interior; to-day the small army of workers employed by Menier, the modern pioneer, is pushing steadily onward, building roads, making clearings and laying the foundation of agricultural prosperity.

Within five years more than two millions of dollars have been expended by Henry Menier for the benefit of this island of the New World. In the same period he has worked many hours each day upon the problem of its future. He has brought science and intelligence and physical labor to bear upon the question of its development, and where he has sown dollars he intends to sow hundreds, and where he has devoted the brains and the strength of a battalion he intends to devote the strength and the brains of a corps.—H. H. Lewis, in Ainslee's.

AT BLOODY ANGLE

The story of how Sergeant Fasnacht captured a rebel flag at Bloody Angle is one of the most exciting episodes of the Civil War. The affair took place while the advance force of the Union army was moving through the wilderness toward Richmond. Fasnacht was a sergeant in company A of the Ninety-ninth, and here is the exploit as related by Carl Hovey in "The Medal of Honor" series in "Everybody's Magazine:"

"There was a commotion; riflemen showed their heads and doubled their fire; a Confederate flag was flung up high above all. The sight of this flag in an instant made another man of Sergeant Fasnacht. In his mind's eye he saw himself the captor of the rebel flag. The idea flashed upon him all in one confused moment, and then took shape in a definite determination. But as he ran round the right of his company and sprang ahead of the men he appeared only one among a mad group who were rushing straight at an invincible earth-wall which had promised their destruction.

"The wall doled out destruction to the lines of soldiers, one by one. Behind this was a ditch filled with water, and from the opposite side of the ditch rose the earthworks, with the men in dirty gray discharging their bayonetted muskets in rain and smoke—and the flag waving over all. The few men that were ahead were caught fast in the first entanglement; but as they faltered, struggling, the mass of the line crashed heavily against their backs and pushed them through into the ditch. Fasnacht feeling himself hurled forward had struck down the soldier directly in front of him with the butt of his musket, and found himself standing on top of the earth mound. The flag was only a few feet away. He rushed at the color-bearer, a tall man who was holding the flag high; with outstretched arm he yelled to him to surrender.

"A section of the fighting came between them. The man with the colors and the soldiers about him dropped inside the defenses and ran off toward some woods. Before Fasnacht could follow the smoke and fog had hidden them. Intent upon his business of the day, the sergeant avoided the bloody confusion here and set off alone toward the woods, reasoning that as there was an open gap on the right of the Union battle-line the color-bearer would try to escape on that side.

"Although he could see nothing but the glistening trunks of trees he felt sure the flag would not escape him, and so continued for perhaps a hundred and fifty yards at a stumbling run, impatiently pushing aside briery shrubs, breathlessly going on. Then appeared in front of him through an arch of the trees the color-bearer carrying his flag. Five or six men, his color-guard, were just behind him. Fasnacht threw his musket to his shoulder, pressing his finger against the trigger. The gun was not loaded. The other saw him.

"'Surrender!' panted Sergeant Fasnacht.

"The tall man said, 'Don't shoot—I surrender.'

"The men with him made no motion to fire. Doubtless their guns were not loaded. The tall man reached out the flag on his stick, which the sergeant, still keeping his formidable musket cocked, let fall at his feet. He told the men of the color-guard to drop their arms. They did so.

"'Get to the rear!' continued he, in a cool fashion; and as soon as the Confederates had passed round him and disappeared he turned his attention to the captured prize. It was old with service, inscribed with the names of battles and the title of the regiment, 'Second Louisiana Tigers.' The sergeant grinned in his good-humor. He was delighted with himself at that moment. Standing on the staff he ripped the flag off and stuffed it away under his loose blouse.

"'You had better let me have that,' somebody said behind him. Turning with a jerk he saw the colonel of his regiment some distance away, and, further off, some of his comrades coming through the woods. He stared at the mounted officer with a serious, gloomy face, and, as if the movement were mechanical, continued to crowd the flag into his bosom.

"'Keep it,' said the colonel, with a laugh."

FOOD

It is frequently asked what should be the character of the food taken. The answer must at first be as general as the question; and it may be said that the digestion may be taxed either in the quantity or the quality of food, and in direct ratio with the resisting power and vital energy of the individual. The climate and occupation must also be considered. A stalwart wood-chopper requires in the winter large meals rich in fats and carbohydrates, which, in the process of oxidation, produce relatively a large amount of heat, and albumens, that more directly nourish the muscles and nerves. With such a worker, so long as there is sufficient nutritive value in the food, great attention need not be paid to its variety, nor even to its digestibility. For instance, certain woodsmen crave a very resisting form of pastry because it "stays by" and does not too quickly leave the stomach empty. For such persons the hastily prepared oatmeal pudding is suitable, because it is slow to digest.

For the sedentary and indolent person the supply of food should be small and digestible. For the sedentary brain-worker the amount taken should be increased in proportion to his mental activity, and it should be easily digestible and very nutritious. In a cold climate, as is generally known, large amounts of fat are required, while in hot climates the carbohydrates and fruits seem to be demanded by the organism.

For the ordinary business or professional man, or the student, a breakfast may be advised to consist of two soft-boiled eggs or an omelet, a piece of bacon or fish, a roll or some toast and one cupful of coffee. Oatmeal pudding is unsuitable because it is rarely well mixed with saliva, but is hurriedly bolted, deglutition being facilitated by the covering of cream. The same may be said of other "cereals," except those which are partially dextrinized by previous cooking in the process of manufacture. Early in the morning a glassful of pure water, neither iced nor hot, should be taken.

If the breakfast hour is at eight, the luncheon hour should be at one. Milk is an excellent aliment for this meal. It disagrees with some, but this is usually because other foods are taken with it. Milk is not to be regarded as a drink, but as a food. It is best taken alone, but it generally agrees better if a certain amount of starchy food is taken at the same time, although the latter should neither be saturated with milk nor washed down by it. Milk should be drank and bread eaten slowly. The object of this is to take advantage of the action of the saliva in converting starch into maltose. For those who dislike milk, or with whom it does not agree, the luncheon may consist of broth or light soup, bread and butter, a few oysters, sweetbread or stewed lobster, and perhaps a little farinaceous pudding, like corn-starch, thoroughly prepared rice or tapioca. Of such a luncheon fruit may form a part, or fruit may be taken before breakfast, and rarely after dinner. With such an arrangement dinner should be taken at six or thereabouts. This meal should be as much as possible served slowly in courses.

The conventional arrangement of the courses at dinner is a desirable one, and is apparently the result of the experience of ages. The preliminary course of a good soup that is not too rich, to be followed by fish, then a joint or roast with one or two vegetables, a small salad, bread and some simple dessert constitute a typical dinner, and in amount should be sufficient to make up for the somewhat scanty meals that preceded it. —Dr. Charles G. Stockton, in Personal Hygiene.

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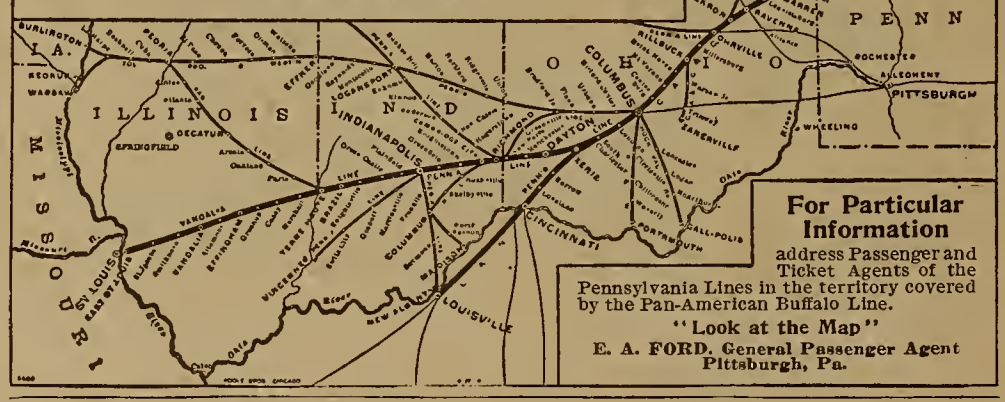

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The Denver & Rio Grande Railroad, "The Scenic Line of the World," has prepared an illustrated book upon the above subject, which will be sent free to farmers desiring to change their location. This publication gives valuable information in regard to the agricultural, horticultural and livestock interests of this section, and should be in the hands of every one who desires to become acquainted with the methods of farming by irrigation. Write S. K. Hooper, G. P. & T. A., Denver, Colo.

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on your grapes may destroy the whole crop in one night while you are asleep. **Don't have it.** Spray the leaves and vines with **Bordeaux Mixture or Paris Green.** The best and quickest way to put it on is with one of our... NOVELTY FORCE AND SPRAY PUMPS. We deliver a sample for $1.50. Send for Free Spraying Calendar. Agents wanted everywhere.

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NEW LIGHT FROM BABYLONIAN RECORDS

Professor Delitzsch, who holds the chair of Assyriology in the Berlin University, and is perhaps the leading living authority on Babylonian literature, recently delivered a lecture in the German capital on the recent additions to knowledge made by cuneiform inscriptions, and from this discourse, as reported by the "Kreuz-Zeitung" of Berlin, we give the following outline:

Babylonia is the native land of the clay-tablet literature, of the pictures made in burned clay, of the angels of the Cherubim and the Seraphim. Some of the pictures found on these tablets correspond exactly to our biblical conception of these beings. Demons, too, and devils are pictured in the most abhorrent shapes and forms. Then, too, contests between the angels of light and those of darkness are vividly pictured. Of inestimable value are the royal libraries which have been unearthed, the royal archives, and other remnants of important literature. On eight-sided and even ten-sided clay prisms the kings caused the history of their reigns to be impressed; but everything else was described, written by a fine stylus on moist and soft clay, which was then hardened by being burned. The private library of King Shalmaneser shows that the people of that period thought and felt much as we do now. One courtier assures the king that he daily prays for his prosperity and for his life and that of his royal mother. An old servant asks the king, on two tablets, to appoint his son a page, and assures his royal master that if his wish is granted he will do obeisance prostrated on his face.

On the large tablets of the public libraries we have the whole wisdom of the Babylonians. In the epic of creation we have essentially the same ideas that are found in Genesis, and the Babylonian story of the deluge makes the impression of greater originality even than the biblical report. The same fundamental ethical thoughts, the same wails of sorrow and repentance, the same searching for grace and redemption which we find in the Psalms of the Old Testament we find also in the hymns of the Babylonians. As is the case in the Old Testament, the priest asks the man who is suffering from disease concerning his sins whether he has approached the wife of his neighbor or has failed to observe the law of love.

Then we find an abundance of business and marriage contracts, and of learned discourses, which give a clear idea of the culture of that age. We are told that the son-in-law of a man receives not only the daughter, but also a number of head of cattle. House-rent at that time was quoted at prices ranging from 12 to 29 marks ($2.94 to $21.80). One of the most valuable finds of art was made in the palace of Nebuchadnezzar; namely, of the image of a white lion with a yellow mane burned in clay, the image being formed of a large number of tablets.

Very remarkable is the fact that Babylonian civilization remained practically at a standstill for more than seventeen hundred years. Most remarkable, too, is the fact that the Babylonians, who, like all Semites, were originally monotheists, for more than three thousand years practised the worship of images and the most pronounced polytheism. This is to be attributed to the influence of the Summerians, to whom also we are indebted for the division of the hour into sixty minutes, and for the division of the zodiac into three hundred and sixty degrees. We can survey the evidences of this culture up to the fifth millennium before Christ by the light of this wonderful cuneiform literature. "As if from the top of the tower of Babel," says Delitzsch, in closing his discourse, "we can look upon the nations of the earth; but we see especially in his heavenly glory that God before whom a thousand years are as one day, which passed as yesterday and as a watch in the night."—The Literary Digest.

A TRUE HORSE STORY

A remarkable instance of equine sagacity was exhibited this morning which comes to us testified to by several reliable witnesses. Thomas Drummond, a teamster in our city, owns a horse which has been afflicted with lameness for two or three weeks past. This morning Mr. Drummond turned him out upon the common, hoping that fresh air and exercise would benefit the animal. Upon gaining his liberty the crippled horse hobbled along on three legs direct to the blacksmith-shop of William Eager, entered the shoeing department and stood there holding up his injured foot, with his head turned and his eyes intelligently fixed upon Mr. Eager. This peculiar act on the part of a brute attracted Mr. Eager's attention and induced him to examine the foot held invitingly up for inspection. The result of that examination was the discovery of a long nail driven into the frog, which was the cause of the lameness. Of course, Mr. Eager removed the nail. Mr. Drummond generally had his horses shod at Mr. Eager's shop, and the suffering brute undoubtedly reasoned that this was the place for him to go for relief. Equine intelligence, according to the common acceptation of the term, is not so rare, but when a horse deliberately concocts and executes a plan for relieving his injured foot of a rusty nail he certainly can lay claim to a small portion of the reasoning faculties which are supposed to elevate the human race above the level of brutes. —Janesville (Wisconsin) Gazette.

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M. NEIGHBORS, Eastwood, Tenn., writes: "I suffered with **Rheumatism** in my right knee for thirty years, sometimes better and sometimes worse, until finally it moved up into and across my back, so I could hardly do anything. The doctor said it was Sciatica. Nothing did me any good until I used Swanson's **"5-Drops."** Now I can say I am as free from pain as any man of my age in the country. Am nearly seventy-five years old and can walk ten miles in three hours without being much fatigued."

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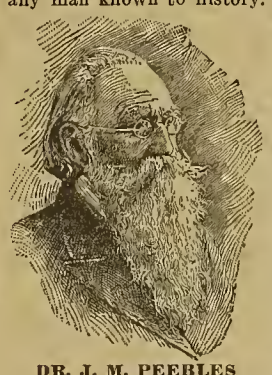

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There is no other remedy in the world that will so quickly cure rheumatism.

A representative who called on Dr. Whitehall the other day was shown a large file case full of letters from people who had been cured. Following are a few among the hundreds of these letters. Space will not permit publishing more of them in this article:

Elder J. C. Shelton, Brooksville, Blount Co., Ala., wrote: "My wife had rheumatism spells every two or three weeks for 45 years. She suffered awful agony at times until I feared she would go insane. I used your remedy during an attack until she sweated freely, when she got easy of all pain. She continued to take the medicine, and, strange to say, she had no more spells. I will gladly recommend the remedy to every one." Mrs. M. S. Hoadley, of Sedalia, Mo., quoted in her own words: "It is wonderful what your medicine has done for me. I was on crutches Friday night when I received it. I took one dose, and on Monday put away the crutches and used a cane. Since Thursday I have not used either, and am doing my own work. I had rheumatism off and on for 40 years." Mr. A. May, aged 63, Butler, Ind., said he took seven different kinds of medicine without relief. Dr. Whitehall's Rheumatism Cure enabled him to throw away his crutches after taking the medicine three days. Mrs. Dunaway, 487 E. 13th St., Anderson, Ind., wrote that her son was a terrible sufferer for over nine years, and was not able to wear shoes at all. He was cured as by magic. Mrs. Dunaway wrote that she got the medicine for her son upon the recommendation of Captain Coburn of the police department of Anderson, who was himself cured by the remedy. Evan P. Jones, North Vernon, Ind., wrote that he was cured of rheumatism of the severest kind, and said at the conclusion of his long letter to Dr. Whitehall: "You may refer any one to me." DR. WHITEHALL, South Bend, Ind.

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On February 12th, and on each Tuesday until April 30th, the Chicago, Milwaukee & St. Paul Railway will sell one-way second-class tickets at the following very low rates:

To Montana points, - -	$25.00
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These tickets will be good on all trains and purchasers will have choice of six routes and eight trains via St. Paul and two routes and three trains via Missouri River each Tuesday. The route of the Famous Pioneer Limited trains and the U. S. Government Fast Mail trains.

All Ticket Agents sell tickets via the Chicago, Milwaukee & St. Paul Railway, or for further information address C. C. Mordough, Traveling Passenger Agent, 12 Carew Building, Cincinnati, Ohio.

LIFE SIZE DOLL FREE "Baby's clothes will now fit Dollie."

Girls can get this beautiful Life Size Doll absolutely Free for selling only four boxes of our Great Cold & Headache Tablets at 25 cents a box. Write today and we will send the tablets by mail postpaid; when sold send us the money ($1.00) and we will send you this Life Size Doll which is 2½ feet high and can wear baby's clothes. Dollie has an Indestructible Head, Golden Hair, Rosy Cheeks, Brown Eyes, Kid Colored Body, a Gold Plated Beauty Pin, Red Stockings, Black Shoes, & will stand alone. This doll is an exact reproduction of the finest hand painted French Doll, and will live in a child's memory long after childhood days have passed. Address,

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Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. three years ago, and I have not gained an ounce since." Purely vegetable, and harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc.

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MYSELF CURED I will gladly inform anyone addicted to COCAINE, MORPHINE, OPIUM OR LAUDANUM, of a never-failing harmless Home Cure. Address MRS. MARY D. BALDWIN, P.O. Box 1212, Chicago, Ills.

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If afflicted with weak eyes, use **Thompson's Eye Water**

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In Camel Land—'twas years ago
(As all the early records show)—
Mr. and Mrs. Camel, tall,
Had on their backs no hump at all.

They were as proud as proud could be
Of their physique—as one could see.
At home they used to joke and laugh
Because so stooped their friend Giraffe!

When their two babies came to bless
Their home with camel loveliness
Their joy was full. "Dear wife," said he,
"Our boys are straight as straight can be!"

But when their age was six or eight
(It pains me this fact to relate)
The parents' counsel (so they say)
The boys neglected to obey.

"Oh, sit up straight!" the mother cried,
When their round shoulders she espied.
"You'll be humpbacked unless you do,"
The father said—"a thing you'll rue!"

But no! The boys had their own way,
Refusing counsel to obey,
Until—too late to change, alack!—
Each had a hump upon his back.

—New Orleans Picayune.

PLEASING THE EPICURES

At one of his famous little dinners a prominent professional man of Washington was greatly pleased with the salad, as were also his guests. Evidently it was partly meat and partly vegetable, but the flavor was new, distinct and undeterminable. This was so faint that one guest declared, "It's not a taste at all, only a smell."

At length some one suggested that the chef be asked for the receipt, upon which the host remarked, "My man greatly dislikes being asked for receipts. On this occasion, however, his vanity may overcome him if we tell him how greatly we have enjoyed the dinner, and the salad in particular. At any rate, we'll see."

The Frenchman soon appeared, and was visibly affected, not to say elated, by the compliments.

"Eet gif me gret plaisir," he said, "to tell how I mak' ze sal-lad. Eet ver' seemple. I haf ze laitue 'range ready; an' I haf ze meat chop ver' fine an' dry; ze celeri I haf chop ver' fine; an' I haf ze pomme de terre, ze patate, an' stan' a leetle an' dry; zen I mix zem up. Zen I mak' ze dresseeng mayonnaise; madame, she know I haf all ver' col' ready as zee feesh ees serf. Zen as ze sal-lad ees to serf I tak' une tete d'ail—pardonnez moi, one leetle cloaf of ze garleek—an' neehle him in ze mouth, so, an hreathe gentle, ver' gentle, on ze sal-lad. Zat gif eet ze flaveur del'cat!"—What To Eat.

DOING HIS BEST

He was a poor but honest working-man on his way home in a Broadway car. As the car proceeded down town it was filled with passengers, and soon the aisle was crowded, some swinging on the straps. The laborer got up from his seat, touched his hat and motioned to a well-dressed lady to take it.

"Don't let me deprive you of your seat, my poor man," she said.

He touched his hat and replied, "Oh, take it; that's all right! No depravity at all, woman; no depravity at all!" And he wondered why everybody smiled.—Louisville Commercial.

HE WAS ALL FIXED

One of the churches in a little Western town is so fortunate as to have a young woman as its pastor. She was called to the door of the parsonage one day, and saw there a much-embarrassed young farmer of the German type.

"Dey said der minister lifed in dis house," he said.

"Yes," replied the fair pastor.

"Vell—m—I—I vant to kit merrit!"

"To get married? Very well; I can marry you," said the ministeress, encouragingly.

"Oh, but I got a girl alreaty!" was the disconcerting reply.—Brooklyn Life.

A CORRECT GUESS

"If I give you a quarter," said Gazzam to the tramp who had requested that amount, "I suppose you'll buy whisky with it."

"Your supposition is correct, sir," replied the tramp, dropping his dialect for the moment. "You don't catch me wasting good hard cash on eatables! I can get them at people's back doors!"—Detroit Free Press.

MAKING REMNANTS

"Gee, but I'm tired!" said the dry-goods clerk.

"Had a busy day?" asked the motorman.

"There hasn't been much trade, but I have been hard at work all day cutting up remnants for our bargain sale to-morrow."—Buyer.

BROUGHT TO REASON

He was out walking with a young lady who had a decided antipathy to cigarettes, but not being aware of her prejudice he lighted one of the little rolls and began smoking with great gusto, inhaling the fumes deep into his lungs and then blowing great rings up at the moon, which gazed tranquilly down on his folly.

Offended by his presumption, she said, with dangerous urbanity, "Do you know I can read fortunes in cigarette-smoke?"

"Indeed!" exclaimed the unsuspecting youth. "Perhaps you'll condescend to read mine."

"Oh, certainly, if you wish it." Then she gazed up in the air at the delicate blue wreaths of smoke. She hesitated, evidently puzzled about something. "I am undecided which of two things is to befall you," she admitted. "Your fortune is not so easily read as I fancied it would be."

"What are the two things?"

"Why, I can't determine whether you are marked out for lung disease or lunacy," was the answer. "Cigarettes have such diverse effects on people of your temperament."

A moment later the cigarette lay glimmering in the gutter and the fortune-teller was listening to her escort's embarrassed apologies.—Memphis Scimitar.

A NEW VERSION OF AN OLD TALE

He had refused to throw away his cigar when she had requested him to dispose of it. It was on the hotel piazza, and the cigar was an unusually good one.

"Do you know what I'd do," she snapped, "if I were your wife?"

"Something atrocious, of course," he answered. "What would you do?"

"I'd give you slow poison!"

The man smiled. "If you were my wife," he said, "I'd ask you to change that slow poison for the fastest kind known to the drug profession." And he went on smoking.—Cleveland Plain Dealer.

AN EXPEDIENT

Housekeeper—"Now you clear out right square off or I'll call the hired man!"

Tramp—"Please, mum, I only wanted to borry a Bible, if you have one to spare."

Housekeeper—"Bibles? I've got about forty!"

Tramp—"Well, mum, will ye please lend me one a few minutes? I want to read about Belshazzar's feast. Mebby it will stay my appetite till I git to some town where people has fewer Bibles an' more pies."—New York Weekly.

NICE, BUT NOT SATISFACTORY

They were his first pants, and he proudly wore them off to school. When he returned at noon his mother and sister were curious to learn about his experiences and how he comported himself.

"Do you like your pants?" asked his mother.

The young man hesitated a little, as one who hates to criticize, and said, diffidently, "Y-y-yes. But, mama, can't you put some patches on them? All the other boys have 'em!"—Judge.

AN APPRECIATED CATASTROPHE

"Durin' the performance of an Uncle Tom's Cabin company one night last week," said the landlord of the tavern at Kohank, "the opery-house caught fire."

"Is that so?" inquired the patent-churn man. "What was the result?"

"Aw! It burnt to the ground, amid the heartfelt applause of all the prominent citizens present!"—Puck.

COLLECTING HIS OWN

Mrs. Manycooks—"There are only six sponge-cakes in the pantry, Bridget. I thought you baked a dozen."

Bridget—"Well, mum, Officer Branagan called, an' Oi had to give him some as our assessment for police protection."—Puck.

HEREDITY

"I don't care much about the circus," said the boy. "I only go to give father an excuse for going."

This terrible falsehood illustrates the influence of heredity.—Detroit Journal.

TOOK ADVICE

"My man, tell me how you came to be a tramp."

"Oh, bless yer, they got me t' jine one o' these don't-worry clubs, an' I got so I didn't keer when I lost m' job!"—Detroit Free Press.

THE EASIER WAY

"The doctor says you ought to take life easier—to enjoy yourself more."

"All right; I'll go take a trip on this money which I had saved to pay on his bill."—Chicago Record.

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Sent Absolutely Free to All Who Accept This Offer Now.

Do you want a skin as soft and smooth as satin—so clear and beautiful that it will attract attention wherever you go? Nature provides a remedy for everything, and the secret of a perfect skin has been accidentally discovered in a new liquid used at our Works. It was found to remove all spots, freckles and other blemishes without the slightest injury, quickly clearing, whitening and beautifying the skin. Physicians and Dermatologists pronounced it wonderful, and as harmless and mild as cream. We named it

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DEERING AT PARIS IN 1900

The Famous Chicago Harvester Company Received More and Greater Honors Than Were Ever Before Accorded an American Exhibitor in the History of Expositions.

America may well feel proud of the interest which her citizens took in the Paris Exposition, and the elaborate exhibits which were prepared with consummate skill and displayed in a manner not excelled by any other country. Those of Harvesting Machinery, in particular, were most complete and interesting. The Deering Harvester Company, of Chicago, America's foremost manufacturer of this line of goods, was accorded the position of honor, having contributed more to the advancement of the art of harvesting than any other manufacturer, living or dead, and with a greater array of important inventions to its credit than any other company in the world.

Visitors to the Exposition were prompt to accord the Deering exhibits supreme honors, and it only remained for official mandate to ratify the popular verdict, which was done in a manner as substantial as it was well merited. Each one of the seven Deering exhibits secured the highest award in its class.

In addition to four high decorations the Deering Harvester Company received twenty-five awards, or twenty-nine in all, as follows: Decoration of Officer of the Legion of Honor, Decoration of Chevalier of the Legion of Honor, Two Decorations of Officer of Merite Agricole, a Special Certificate of Honor, The Grand Prize, Six Gold Medals, Six Silver Medals and Eleven Bronze Medals, including Deering Collaborator Medals.

The Decoration of the Legion of Honor was instituted by Napoleon Bonaparte when First Consul in 1802, and is only conferred in recognition of distinguished military or civil achievements. It is the highest distinction in the gift of the French Republic.

The Decoration of Merite Agricole is an honor of but slightly less importance, which is conferred upon those who have contributed greatly to the advancement of agriculture:

An Official Certificate of Honor was accorded the Deering Retrospective Exhibit, which showed the improvements in harvesting-machinery during the past century, and excited the highest praise of the French Government Officials who had intrusted to the Deering Harvester Company the preparation of this most important exhibit. By special request this exhibit has been presented to the National Museum of Arts and Sciences at Paris, where it has become a permanent feature of that world-famed institution.

The Deering Twine Exhibit and Corn Harvester Exhibit, both of which received the highest awards, have, by request of the French Government, been presented to the National Agricultural College of France.

There was no field trial, either official or otherwise, in connection with the Paris Exposition, but the most important foreign contest the past season was held under the auspices of the Russian Expert Commission at the Governmental Farm of Tomsk, Siberia, August 14th to 18th. All the leading American and European machines participated and were subjected to the most difficult tests by the Government Agriculturist. The Expert Commission awarded the Deering Harvester Company the Grand Silver Medal of the Minister of Agriculture and Domain, which was the highest award.

The Deering Harvester Works are the largest of their kind in the world, covering eighty-five acres and employing nine thousand people. They are equipped with modern automatic machines, many of which perform the labor of from five to fifteen hands.

This Company is also the largest manufacturer of Binder Twine in the world, having been first to produce single-strand binder-twine, such as is in general use to-day, making over a third of the product of the entire world. The output of its factory for a single day would tie a band around the earth at the equator, with several thousand miles to spare. The annual production would fill a freight-train twenty miles long. Made into a mat two feet wide it would reach across the American continent from ocean to ocean.

Deering machines are known as LIGHT DRAFT IDEALS, consisting of Binders, Mowers, Reapers, Corn Harvesters, Shredders and Rakes.

This Company exhibited at the Paris Exposition an Automobile Mower, which attracted much attention, and exhibitions were given with one of these machines in the vicinity of Paris throughout the season.

DAIRYING

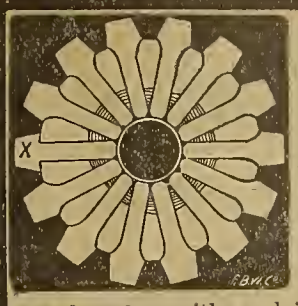
FARM CREAM-SEPARATORS

ON INVITATION of Secretary F. D. Coburn, of the Kansas State Board of Agriculture, an address was delivered at the board's recent annual meeting by Mr. Geo. Morgan, a long-time observant dairy and creamery man, on the subject of using cream-separators on the farm. Mr. Morgan is entirely convinced of the desirability of the milk-producer having his separating done at home rather than at the factory or station, and some of his observations are as follows:

The value of the farm separator to the private dairyman has already passed the experimental stage. The evidence of our experiment stations and the testimony of all who have made a careful, intelligent comparison between the gravity system and the modern cream-separator is practically a unit in favor of the latter for the private dairyman. The question as to its advantages in localities where creameries are established is one upon which there is much difference of opinion. The most serious problem confronting creameries at this time is that of operating expenses. This applies alike both to creamery and patron; whether under co-operative or proprietary management it makes but little difference. All are vitally interested in expense account. If the Eastern creamery enjoys a patronage of from 10,000 to 30,000 pounds of milk a day, while many of our creameries are running along at from 3,000 to 5,000 pounds, then we have lost much of the advantages we possess on account of our cheaper dairy foods in the increased cost of operating. Evidently so long as present conditions exist some system of centralization is inevitable.

The farm separator, we think, will assist greatly in solving this problem. It means a minimum of labor with a maximum of profit. The product is carried in condensed form from the patron to the creamery. In our state dairying is incidental to beef and pork production. The conditions at times are peculiar and perplexing. The farmer has a way of putting the creamery on half rations of milk. When times and crops are good it is no uncommon thing to find him at milking-time quietly sitting on the fence, with a complacent smile upon his countenance, as he watches the calf do the milking; but when reverses come the cow and the creamery are counted among his best friends and assets. Where large investments are made in skimming-stations, and these spells strike the patrons, it often proves very disastrous to the management, as they feel compelled to keep running though the patronage has gone below any chance of profit. We feel safe in saying that fully one third of the skimming-stations in this state from October to May do not pay running expenses. It is in these localities where the farm separator will prove of the greatest benefit. If the patronage is light, then the expense is correspondingly light. We place the average cost of a skimming-station at $1,000, and the average cost of operating at $600 per annum. This, of course, will include interest, taxes, insurance, breakage, wear and tear, labor and fuel. Many stations now running in Kansas do not average over 1,500 pounds of milk every other day during the fall and winter. Forty cows at twenty pounds of milk a day a cow will produce 1,600 pounds of milk in two days. Here is an investment, then, of $1,000, with $50 a month expense to handle the milk of forty cows.

At points where the patronage is liberal any radical change would not be advisable. It will work its own way to a great extent. But at these weaker, non-paying stations much good can be accomplished by the use of the farm separator, especially in territory where the distance is too great to haul milk. True, to carry out this plan the farmer must make an investment, for which he is amply compensated in the increased value of the skim-milk and the convenience of having it on the farm morning and evening, to be fed while warm, sweet and fresh and in the best possible condition to the young animal. The milk patron often suffers a severe loss on account of his Sunday's milk during the heated term. He also loses again by feeding new milk to the calf for six or eight weeks, on account of the danger incurred in feeding the creamery milk. Where milk is fed from the farm separator by careful management and the use of Kafir-corn meal the calf can be put upon the skim-milk at fifteen days old. It has been our experience that patrons with from ten to fifteen cows save enough in one year to pay for a hundred-dollar machine.



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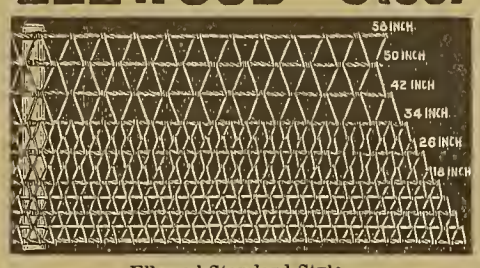

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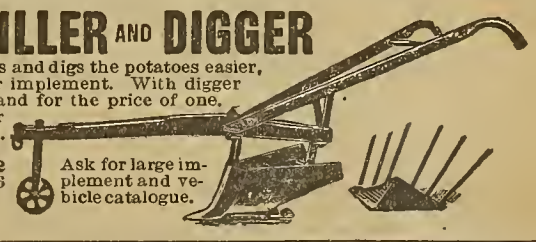

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1807 **Autocrat of the Breakfast Table** Holmes
1811 **Bacon's Essays** . . . . Bacon
1812 **Barrack Room Ballads** . . Kipling
1813 **Beside the Bonnie Brier Bush** Maclaren
1814 **Black Beauty** . . . . . Sewall
1815 **Blithedale Romance** . . Hawthorne
1816 **Boat Club** . . . . . Optic
1817 **Bracebridge Hall** . . . . Irving
1818 **Brooks' Addresses**
1819 **Browning's Poems** . . . Browning
1824 **Childe Harold's Pilgrimage** . . Byron
1825 **Child's History of England** . Dickens
1826 **Cranford** . . . . . Gaskell
1827 **Crown of Wild Olives** . . . Ruskin
1830 **Daily Food for Christians**
1831 **Departmental Ditties** . . Kipling
1832 **Dolly Dialogues** . . . . Hope
1833 **Dream Life** . . . . . Mitchell
1834 **Drummond's Addresses** . . Drummond
1837 **Emerson's Essays, Vol. 1** . . Emerson
1838 **Emerson's Essays, Vol. 2** . Emerson
1839 **Ethics of the Dust** . . . Ruskin
1840 **Evangeline** . . . . Longfellow
1843 **Flower Fables** . . . . . Alcott
1846 **Gold Dust** . . . . . Yonge
1849 **Heroes and Hero Worship** . . Carlyle
1850 **Hiawatha** . . . . . Longfellow
1851 **House of Seven Gables** . Hawthorne
1852 **House of the Wolf** . . . Weyman
1857 **Idle Thoughts of an Idle Fellow** Jerome
1858 **Idylls of the King** . . . Tennyson
1859 **Imitation of Christ** . Thos a'Kempis
1860 **In Memoriam** . . . . Tennyson
1864 **John Halifax** . . . . . Mulock
1867 **Kept for the Master's Use** . Havergal
1868 **Kidnapped** . . . . . Stevenson
1869 **King of the Golden River** . . Ruskin
1873 **Laddie**
1874 **Lady of the Lake** . . . . Scott
1875 **Lalla Rookh** . . . . . Moore
1876 **Let Us Follow Him** . . . Sienkiewicz
1877 **Light of Asia** . . . . . Arnold
1878 **Light That Failed** . . . . Kipling
1879 **Locksley Hall and Maud** . . Tennyson
1880 **Longfellow's Poems** . . Longfellow
1881 **Lorna Doone** . . . . . Blackmore
1882 **Lowell's Poems** . . . . Lowell
1883 **Lucile** . . . . . Meredith
1888 **Marmion** . . . . . Scott
1889 **Mosses from an Old Manse** Hawthorne
1893 **Natural Law in the Spiritual World** Drummond
1894 **Now or Never** . . . . . Optic
1897 **Paradise Lost** . . . . . Milton
1898 **Paul and Virginia** . . . Saint Pierre
1899 **Pilgrim's Progress** . . . Bunyan
1900 **Plain Tales from the Hills** . . Kipling
1901 **Pleasures of Life** . . . . Lubbock
1902 **Prince of the House of David** Ingraham
1903 **Princess** . . . . . Tennyson
1904 **Prue and I** . . . . . Curtis
1907 **Queen of the Air** . . . . Ruskin
1910 **Rab and His Friends** . . . Brown
1911 **Representative Men** . . Emerson
1912 **Reveries of a Bachelor** . . Mitchell
1913 **Rollo in Geneva** . . . . Abbott
1914 **Rollo in Holland** . . . . Abbott
1915 **Rollo in London** . . . . Abbott
1916 **Rollo in Naples** . . . . Abbott
1917 **Rollo in Paris** . . . . . Abbott
1918 **Rollo in Rome** . . . . . Abbott
1919 **Rollo in Scotland** . . . . Abbott
1920 **Rollo in Switzerland** . . . Abbott
1921 **Rollo on the Atlantic** . . . Abbott
1922 **Rollo on the Rhine** . . . Abbott
1923 **Rubaiyat of Omar Khayyam** . Fitzgerald
1928 **Sartor Resartus** . . . . Carlyle
1929 **Scarlet Letter** . . . . Hawthorne
1930 **Sesame and Lilies** . . . Ruskin
1931 **Sign of the Four** . . . . Doyle
1932 **Sketch Book** . . . . . Irving
933 **Stickit Minister** . . . Crockett
1940 **Tales from Shakespeare** Charles and Mary Lamb
1941 **Tanglewood Tales** . . Hawthorne
1942 **True and Beautiful** . . . . Ruskin
1943 **Three Men in a Boat** . . . Jerome
1944 **Through the Looking Glass** . . Carroll
1945 **Treasure Island** . . . . Stevenson
1946 **Twice Told Tales** . . . Hawthorne
1950 **Uncle Tom's Cabin** . . . . Stowe
1954 **Vicar of Wakefield** . . . Goldsmith
1958 **Whittier's Poems** . . . Whittier
1959 **Wide, Wide World** . . . . Warner
1960 **Window in Thrums** . . . . Barrie
1961 **Wonder Book** . . . . . Hawthorne

We Will Send the Farm and Fireside One Year and Any ONE of the Books Listed Above for 50 Cents

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

Any ONE of These Books Given as a Premium for TWO Yearly Subscriptions to the Farm and Fireside

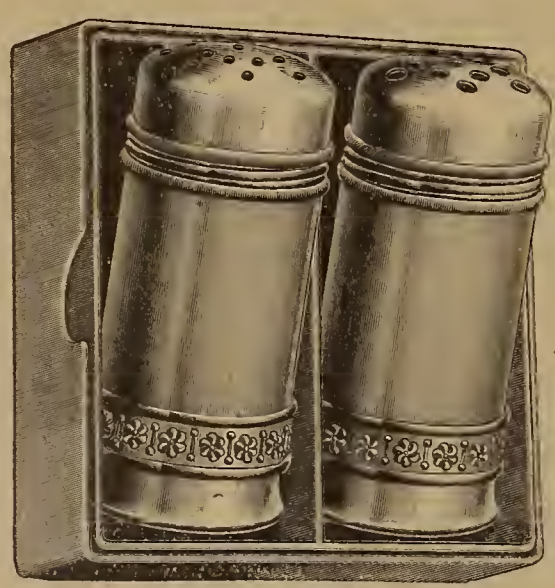
POSTAGE PAID BY US. ORDER BY ABOVE PREMIUM NUMBERS

SILVER-PLATED

SALT AND PEPPER SHAKER

BOTH GIVEN FOR TWO YEARLY SUBSCRIPTIONS

These shakers are 2¾ inches high by 1¼ inches in diameter, which is a good proportion and makes a good-sized shaker. They are neatly embossed, the bottom up to the embossing and the top being highly burnished, while the main body of the shaker is satin-finished. They are well silver-plated on a base of high-grade nickel-silver, which insures first-class wearing quality.



Premium No. 417

The set, a salt and a pepper, is packed in a case, and will be sent by mail, post-paid. They are very neat and very serviceable. This set is especially good value and an extra liberal reward for but two yearly subscriptions. Send two yearly subscriptions for it and we know you will be pleased.

We Will Send the Farm and Fireside One Year and This Set for Only . . . . 75 Cents

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

Both Given as a Premium for TWO Yearly Subscriptions to the Farm and Fireside

GENUINE DIAMOND BRAND SCISSORS . .

Premium No. 147

These are the genuine Diamond Brand Scissors, made and warranted by the largest scissors-factory in the world. They are made of fine steel, hand-forged, ground edges, tempered by experts, heavily nickel-plated, highly polished. Length 7¼ inches.

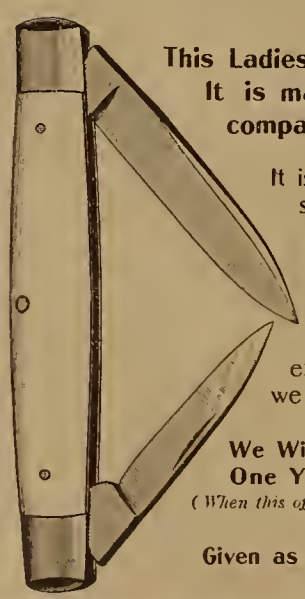
We Will Send the Farm and Fireside One Year and These Nickel-Plated Steel Scissors for . . 70 Cents

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

Given as a Premium for THREE Yearly Subscriptions to the Farm and Fireside

Unexcelled Ladies' Knife

Premium No. 150



This Ladies' Penknife is neat and tasty in every respect. It is manufactured by an old reliable manufacturing company and is guaranteed by them.

It is 2⅝ inches long, and has two blades made of razor-steel, hand-forged, oil-tempered, carefully sharpened and highly polished. The handle is of genuine ivory, the trimmings of German silver, and the linings of brass. The cut shows the exact size and shape of the knife. Fully warranted. This knife is usually sold in stores at from 75 cents to $1.00, but as an extra inducement to our club-raisers and subscribers we make the following very liberal offer.

We Will Send the Farm and Fireside One Year and This Penknife for Only 80 Cents

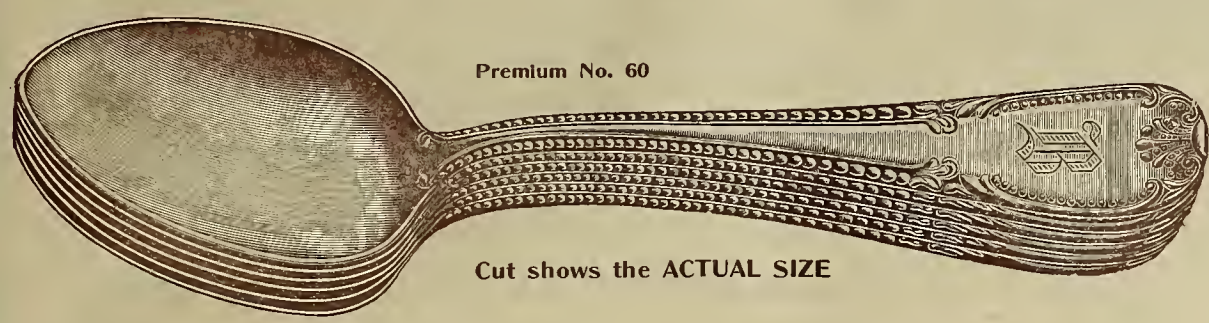
(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

Given as a Premium for FOUR Yearly Subscriptions to the Farm and Fireside

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

COIN-SILVER PLATED WARE

The offers below set forth the biggest bargains ever given in high-grade silver-plated ware. This ware can be used in cooking, eating and medicines the same as solid silver; it will not, cannot turn brassy, corrode or rust. In beauty and finish it is perfect. The only way in which we are able to offer this ware at such bargains is that we have it manufactured especially for us in enormous quantities, and handle it without profit to get subscriptions and clubs. This ware is full regulation size.



Premium No. 60

Cut shows the ACTUAL SIZE

Pure Coin-Silver Plating

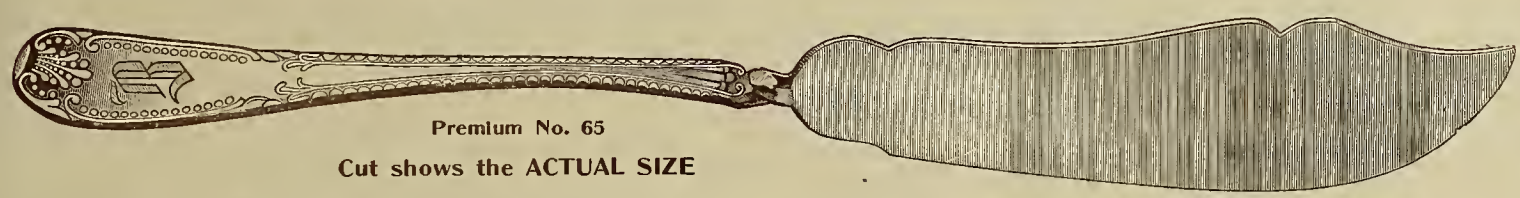
The base of this ware is solid nickel-silver metal, which is the best white metal known for the base of silver-plated ware, because it is so hard and so white that it will never change color and will wear for a lifetime. On top of this superior nickel-silver base is plated the full STANDARD amount of pure coin-silver.

FROM MANUFACTURER TO USER

There is no middleman's profit added to the price of this ware, as we are satisfied to handle it without profit to get subscriptions and clubs, and pass it from the manufacturer to the user at manufacturer's cost and the additional expense of the postage and wrapping.

Premium No. 66

Cut shows the ACTUAL SIZE



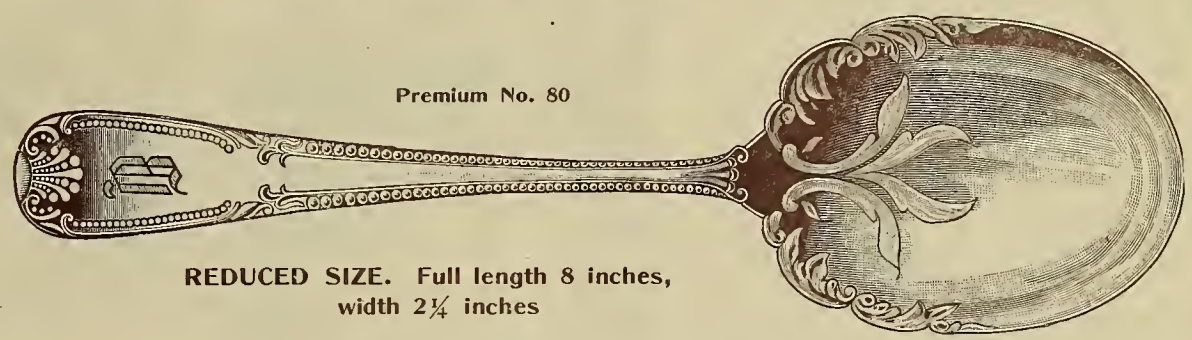
Premium No. 65

Cut shows the ACTUAL SIZE

Guarantee We absolutely guarantee every piece of this ware to be exactly as it is described and to give full and entire satisfaction or money cheerfully refunded.

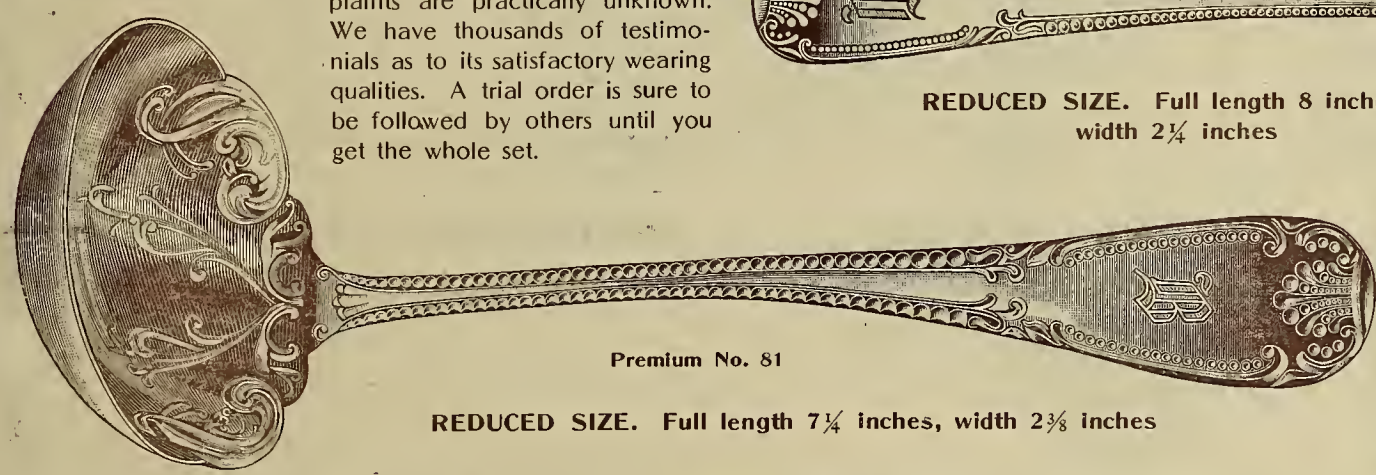
WEAR PROVES ITS QUALITY

We have handled this wear for years and have sent it into many thousands of homes, where it is now rendering general satisfaction. Hundreds of thousands of pieces of it have been sent out, covered by our guarantee, and complaints are practically unknown. We have thousands of testimonials as to its satisfactory wearing qualities. A trial order is sure to be followed by others until you get the whole set.



Premium No. 80

REDUCED SIZE. Full length 8 inches, width 2¼ inches



Premium No. 81

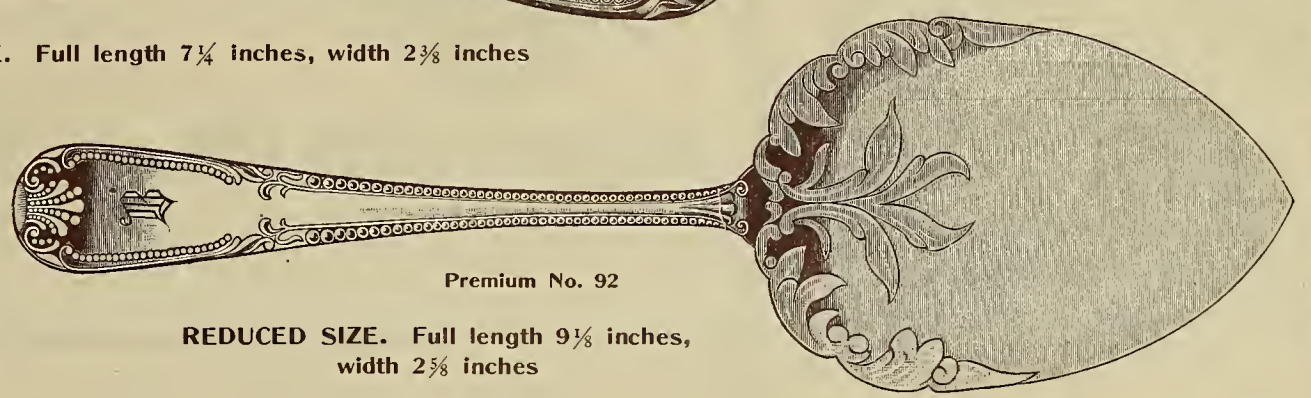
REDUCED SIZE. Full length 7¼ inches, width 2⅜ inches

ANY INITIAL LETTER

Each piece of this ware engraved free of charge with an initial letter in Old English. Only one letter will be engraved on each piece. Always state your choice.

Will Stand Any Test

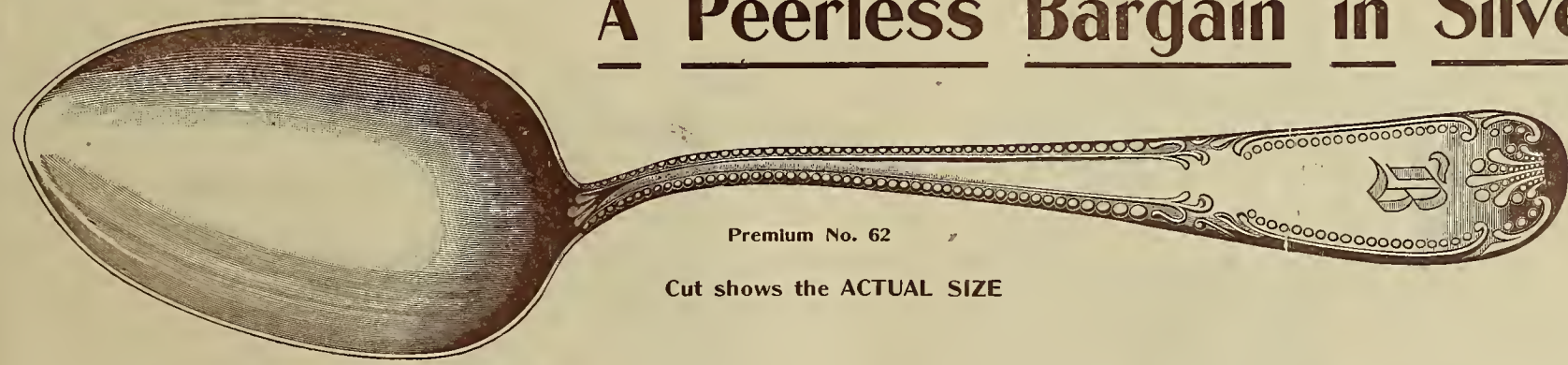
To test this silverware use acids or a file. If not found to be plated with the full STANDARD amount of pure coin-silver and the base solid white metal, and exactly as described in every other particular, we will refund your money and make you a present of the subscription. If returned to us we will replace free of charge any piece of this ware damaged in making the test.



Premium No. 92

REDUCED SIZE. Full length 9⅛ inches, width 2⅝ inches

A Peerless Bargain in Silverware



Premium No. 62

Cut shows the ACTUAL SIZE

PREMIUM OFFERS

We will send the Farm and Fireside one year and the Silverware at these prices:

The Farm and Fireside 1 year and a Set of 6 Teaspoons for	$ .75
The Farm and Fireside 1 year and a Set of 6 Tablespoons for	1.25
The Farm and Fireside 1 year and Berry-Spoon for	.65
The Farm and Fireside 1 year and Pie-Knife for	.65
The Farm and Fireside 1 year and Gravy-Ladle for	.65
The Farm and Fireside 1 year and Butter-Knife and Sugar-Shell (both)	.60

(When any one of the above offers is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

SILVERWARE FREE

For securing Clubs of Subscriptions to the Farm and Fireside . . . . . .

Set of 6 Teaspoons given free for four yearly subscriptions
Set of 6 Tablespoons given free for six yearly subscriptions
One Berry-Spoon given free for four yearly subscriptions
One Pie-Knife given free for four yearly subscriptions
One Gravy-Ladle given free for four yearly subscriptions
Sugar-Shell and Butter-Knife (both) given free for four yearly subscriptions

RENEWALS and new names, including a club-raiser's own subscription, can be counted in clubs. No reduction allowed in the clubbing prices)

Postage or expressage paid by us in each case

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

FARM SELECTIONS

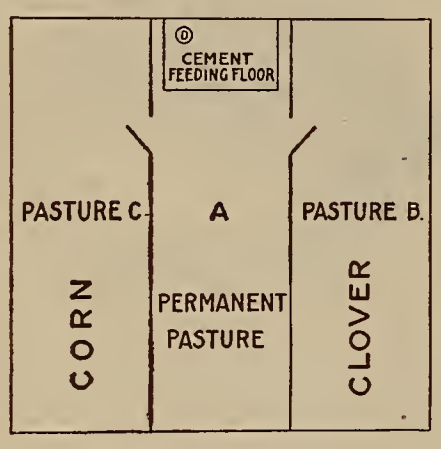
PLAN FOR HOG PASTURE

In answer to the queries of B. B., Colfax, Iowa, "To Get the Most Out of the Hog," I herewith send you a hog-pasture plan which was recently brought out by a successful hog-raiser, Mr. Forest Henry, one of Minnesota Farmers' Institute instructors.

The permanent pasture, A, can be seeded down to June-grass, white clover, blue-grass, timothy, in fact, almost any grass that will not freeze out. Pasture B is for clover for summer grazing, also for winter grazing if wanted and possible. Pasture C is for corn or green-corn fodder raising. Just before laying the corn by for the season sow fifteen pounds of clover-seed to the acre and cultivate it in when going through with the corn-cultivator the last time, usually not deeper than two to four inches. By this time the ground is generally quite well shaded enough by the corn to hold the necessary moisture to insure a good stand of clover, even in a dry season.

The next year pasture C will be your clover-grazing ground, and in pasture B the clover sod will be turned under for corn and seeded down to clover again, as before. Every year change the clover on the corn pasture and the corn on the clover pasture. By this continual exchange of grazing-ground the pasture soils will be getting richer every year and growing larger corn and more clover. This is also a good place to pick out your seed-corn.

Make the feeding-floor of cement. It was stated that it was thought to be better not to have a roof above the feeding-floor, so as



to get all the sunshine on top of it, but that there could be a three-foot tight-board fence around the sides of the floor, to keep off the chilly winds. Fig. D is a water-barrel with an automatic fountain.

Provide dry, comfortable sleeping-quarters, with plenty of light, sunlight being the best disinfectant. On a cold winter day you will frequently see the hog go out to graze on a clover-field if he can get at it. If each pasture contains fifteen acres the plan outlined will be sufficient for one hundred and fifty to one hundred and seventy-five swine. —Arthur Seebach, in Breeder's Gazette.

CATALOGUES RECEIVED

W. W. Farnsworth, Waterville, Ohio. Catalogue of small-fruit plants and seed-potatoes. Specialty, the "King" red raspberry.

B. F. Baker Co., Burnt Hills, N. Y. Illustrated circular of Baker's "Traceless Harness" for field-work; new, light, strong and comfortable.

R. Douglas' Sons, Waukegan, Ill. Catalogue of the Waukegan Nurseries, listing a complete line of fruit and ornamental trees, shrubs, roses, etc.

"Humboldt Grain Exchange," Humboldt, Kan. Descriptive circular of choice seed-corn, pop-corn, sweet-corn, Kafir-corn, broom-corn, etc., from the famous Neosho Valley.

James J. H. Gregory & Son, Marblehead, Mass. Complete catalogue of standard vegetable and flower seeds, choice shrubs, roses, small fruits and practical garden implements.

F. R. Pierson Co., Tarrytown-on-Hudson, N. Y. Large, handsome catalogue, illustrated with beautiful half-tones, listing choice imported and home-grown seeds, bulbs and plants.

The Nicholson & Shepard Co., Battle Creek, Mich. Illustrated catalogue of high-grade threshing-machines, including traction-engines, grain-separators, wind-stackers, self-feeders, etc.

Zenner Disinfectant Co., Box 53, Detroit, Mich. The "Zenoleum Veterinary Adviser," a booklet setting forth the merits of "Zenoleum," a non-poisonous preparation used as a lice-killer, sheep-dip, disinfectant, etc.

Thomas Meehan & Sons, Germantown, Philadelphia, Pa. "A Useful Guide to Making the Home Grounds More Attractive." A handsome pamphlet, illustrated with original half-tones, telling what to plant around the home, how and when to plant and prune, and giving a selected list of choice hardy stock to choose from.

FREE BOOK ABOUT WINDMILLS

When you want a Windmill, don't buy the first you see. Learn all you can about them. Read our book.

SIZE OF WIND WHEELS, 8 TO 20 FEET. PRICES, $25 UP.
HEIGHT OF TOWERS, 25 TO 120 FEET. PRICES, $16 UP.

We have issued a book that tells all about windmills. It begins with the Dutch windmills of 1400, and ends with the Aermotors of 1901. It contains 125 pictures to show you what windmills should do and what they should be. It tells all that invention has done for them. When you read this book you will know all that anyone knows about windmills. You will know the right kind from the wrong kind, and know all the differences. To avoid a mistake, don't buy without reading it. The book is free -- simply write for it.

COVERED BY FIFTY-FIVE PATENTS

When you know all about windmills you will buy none but the Aermotor. That is why we publish this book. We learned what it tells you before we made the first Aermotor. We learned it by making 5000 accurate experiments with 65 kinds of windmills. We have proved to a certainty just what is needed to get the utmost out of a windmill. We have discovered some hundreds of facts that no one else knew, and we have covered our discoveries by 55 patents.

We thus make a windmill that gets power from the slightest breeze. That is why the Aermotor is known as "The wheel that runs when others stand still."

We make a windmill that regulates itself; that calls for no attention, save oiling. In a zephyr or a gale the Aermotor pump maintains the same speed. A simple attachment stops it automatically when tank is full and starts it when the water lowers.

And it lasts. Durability is of enormous importance in a wheel that may revolve 200,000 times daily.

HALF THE WORLD'S TRADE

We came into a field occupied by many great makers of windmills, backed by millions of capital. We came in without money, and in twelve years have captured half the world's windmill trade. Countless thousands of Aermotors now dot every country of the earth. We have done that by simple merit; by making what no one else can make.

We now make so many, and have so much labor-saving machinery that no one can compete with us, even in price.

WRITE FOR THE BOOK

Our book tells the features that control for us half the world's trade in this line and will win your trade when you know them. And if you buy without knowing them, you will never cease to regret it.

For your own sake we ask you to read what our book tells about windmills, before you select. Write for it now, before you forget it. A postal card will do.

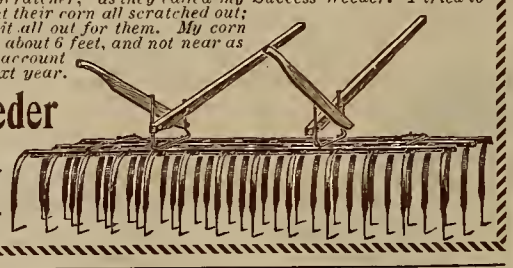
AERMOTOR CO., 1221 TWELFTH STREET, CHICAGO

We have another book about Power Aermotors for doing all sorts of work—for grinding, for sawing, for cutting feed, shelling corn and running many kinds of machinery. This book is free, too. Also a book about Pumps, Tanks, Substructures, Pipes, Fittings and all sorts of Water Supply Goods. We make 160 Tons of Piping daily. Our plant occupies more than 30 acres. This is considered a pretty good sized farm in New England.

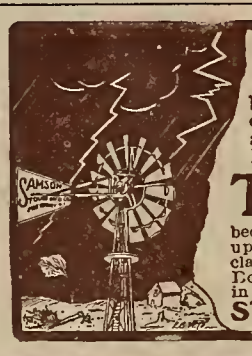
READ, THINK, ACT!

R. M. ABBEY, of Randolph, N. Y., writes:—I wish to tell you about my weeder. I moved into a new locality last spring and the farmers made lots of fun of my "Scratcher," as they called my Success Weeder. I tried to get some of them to use it, but they said they did not want their corn all scratched out; said the crows would get enough without their digging it all out for them. My corn averaged over 9 feet high, the corn around me averaged about 6 feet, and not near as good, either. One man said he guessed the weeder must account for the difference; said he would have to have one next year.

Hallock's Success Anti-Clog Weeder AND CULTIVATOR



would prove just as valuable to you in cultivating any kind of crop. For tempting terms address
HALLOCK WEEDER & CULTIVATOR CO.
Box 830, York, Pa.



It Stands the Storms

better than any wind mill ever invented. This is not only true because of the unusually well constructed and thoroughly trussed and braced angle steel tower, but because of the great strength of the mill itself. It has a way of adapting itself to severe shifting winds.

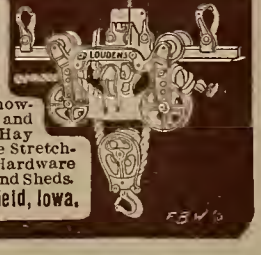
The Samson Wind Mill

because of its many points of superiority, sprung into popular favor immediately upon its introduction, and is now the recognized leader among machinery of this class. The powerful Double Gear with center line draft, long Interchangeable Boxes, freedom from all torsion and overhanging strain, make it the strongest in the world. Don't buy until you investigate this mill. Samson Art Catalog free.
STOVER MFG. CO., 507 River St., Freeport, Ills.

BEST ON EARTH

YOU SAVE MONEY

in buying the LOUDEN GOODS. They work better, easier and last longer. No jumping track by door hangers, nor break-downs of hay tools in harvest—if you use the Louden. Don't fail to get our catalogue showing scores of articles needed on the farm and ranch. Hay Carriers, Hay Slings, Hay Forks, Hay Stackers, Litter Carriers, Ice Tools, Hoists, Wire Stretchers, Ladders, Door Hangers, Door Latches, Hardware Specialties, etc. Also How to Build Hay Barns and Sheds.
Address, LOUDEN MACHINERY CO., Dept. M Fairfield, Iowa.



$25.50 BUYS A BUGGY (with top $33.) We manufacture a full line of Buggies, Carriages and Harness all of latest styles. Superior quality. Prices defy competition. The entire product of 2 enormous factories. Sold direct to consumer only. SAVE DEALER'S PROFIT. Every Carriage guaranteed. Sent on approval. Your money back if not satisfied. Write for Special Offer.
UNION BUGGY COMPANY, 206 Saginaw St., PONTIAC, MICH.

ALL STEEL LAWN FENCE.

50 STYLES—CHEAP AS WOOD
CATALOG FREE—Get our Price Before Buying
WRITE TODAY. UP-TO-DATE MFG. CO.
971 North 10th St. TERRE HAUTE, IND., U. S. A.

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up a little money? Would you like to go into a profitable business? Then buy one of our

Star Drilling Machines

and put it to work. You can make more money drilling wells of all kinds than you can make with the same amount of money invested in any other business. Write us at once for free catalog and proofs of these statements.
STAR DRILLING MACHINE CO., Akron, O.

Sharpen Your Mower Knives

and save time, labor and money. The best grinder made is Bolens Automatic Sickle Grinder. Works automatically perfectly and quickly. General tool grinder attachment with each machine. Guaranteed satisfactory or money back. Sent freight charges prepaid anywhere east of Rocky Mts. for $5.00. Descriptive circular "C" free. Agents Wanted. Write
THE LUTHER COMPANY, Port Washington, Wis.

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Vol. XXIV. No. 15 EASTERN EDITION MAY 1, 1901 Entered at the Post-office at Springfield, Ohio, as second-class mail matter TERMS { 50 CENTS A YEAR 24 NUMBERS

The Dairy-Cow* By James C. Fernald

"YES, I'll sell you a cow."

"Which one?"

"Almost any one. You can take your pick."

There was Number One, a tall, brindled animal, with crowded rings on her long horns, so that one could safely guess she was thirteen years old—once a good cow, but able to do little more than support herself now.

There was Number Eleven, last and youngest, "coming three," with big head, thick neck, bones like a Texas steer and scarcely any visible provision for yielding milk.

Between these two were animals in every stage and of every type of dairy unprofitableness. Lumpy heads and necks, coarse frames, narrow hips, small or misshapen udders, each one was such as to break the heart—and the pocket—of any man who kept only that one.

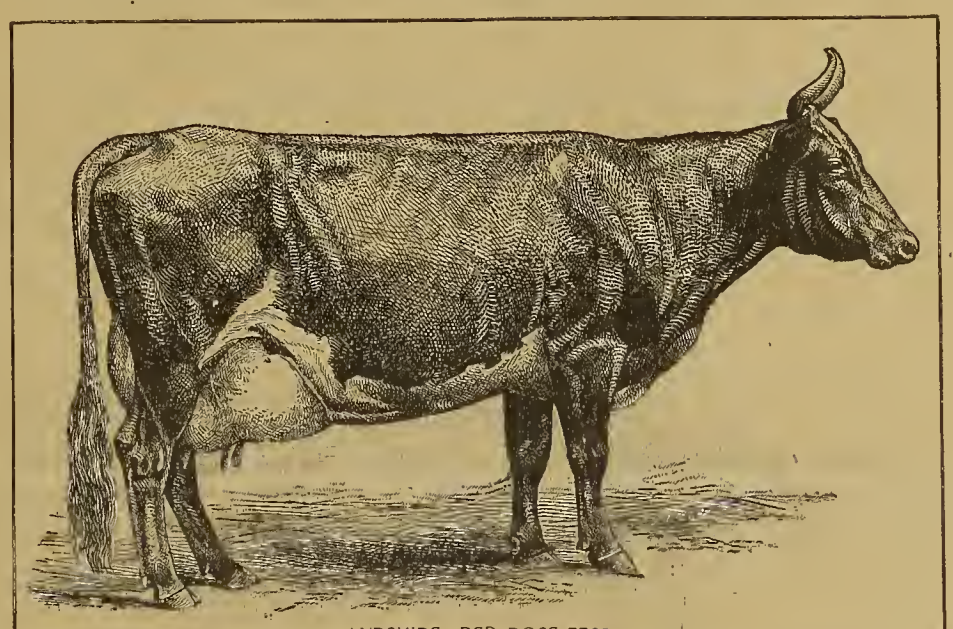
But there was an exception—one fine animal, about eight years old, with delicate frame, straight back, broad hips, a full, "square bag," fine head and neck, and a face whose placid contentment spoke of good health, good digestion and gentle disposition.

I pointed to her, saying, "That is the only one I should care to buy."

The response was instant and sharp, "That's the only one I wouldn't sell!"

There was the whole story. That one fine animal was keeping up the reputation of the herd. She was really balanced against the other ten. The milk from no one of the cows was ever measured or weighed separately nor subjected to any separate test for butter-fat. All went into one great receptacle, each milker's pail being emptied in as fast as it became inconveniently full. But it was known in a general way that when "Cherry" was dry the yield fell off both in quantity and quality, while when she was "fresh" there was a semblance of prosperity in the dairy.

My attention thus called to the matter I began studying small herds, such as are kept on the average farm, and was surprised to find how general was the rule of one good cow surrounded by from eight to twelve bad or indifferent ones. In larger herds the same average would often hold.



AYRSHIRE—RED ROSE 5566

Imported from Scotland in 1875; took first prize at the Philadelphia Centennial Exposition; milk yield in one year, at about five years of age, 8,578 pounds, or practically 1,000 gallons.

If I had said to my friend, "Why don't you keep ten cows like the one which you won't sell?" he would have thought the question to indicate gross practical ignorance. His prompt reply would have been, "I can't afford to." The real fact was that he could not afford not to. If he had begun that day to turn his ten inferior cows into beef, and as fast as he could sell them put the proceeds into really superior animals, getting, we will say, three in place of the ten, he would at once have begun to make money. They would have yielded two thirds the milk on one third the feed. Then from their progeny he could soon have got his full number back, and all would have been superior animals. Mr. Henry E. Alvord, Chief of the Dairy Division in the Bureau of Animal Industry, Washington, D. C., says, "Good judges believe that in the entire country one third of the cows kept for their milk do not pay the cost of keeping, and one third more fail to yield annual profit."

But here is a farmer who says, "It won't work, for I've tried it. Fancy cattle are no good for practical farming."

Well, how did he "try it?" He has a wide range of broken land—hill and valley—bearing coarse grass, where cows must travel over a wide area and hustle to get a supply of food. On this he put some delicate, expensive Jerseys bred for generations to gather rich food within a narrow range. The poor creatures grew thin and scrawny, their coats grew rough and staring, and their yield of milk less and less. The milk continued rich because they were so made that they could not help it; but the small quantity was discouraging, and when the milk ceased to "pay" they were "not even good for beef."

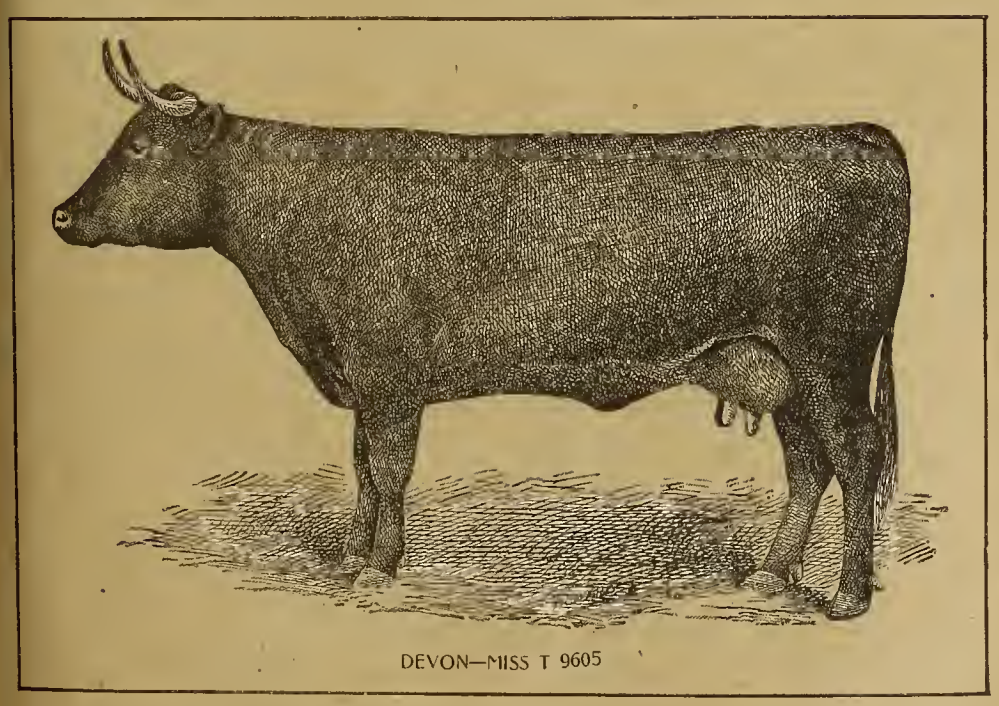
Of course, it was a mistake. But wherein was the mistake? Why, in the fact that he was not "practical." He went into an experiment without studying the conditions. On such a farm as his he did not want Jerseys. There are high-grade cattle that would have thriven on his place and paid him well.

He might have bought Ayrshires. These animals are bred in the southwestern part of Scotland, where are moory hills, much woodland and a climate moist and windy, with a soil but moderately fertile. Cattle must there travel long distances every day in order to secure an adequate supply of food. Hence, there is scarcely any other cow that will thrive so well and yield so much milk on a wide range of scanty pasture. The cows have the wedge-shaped frame that dairymen value—narrow at the shoulders, broad in the hips, with wrinkled udder capable of storing an ample supply of milk when full, whole herds averaging five thousand to six thousand pounds of milk a year for each cow. The milk is of a uniform richness, containing from three and one half to four per cent of butter-fat; but as the fat does not separate so readily as that in the milk of some other breeds—the Jersey, for instance—the Ayrshire is not distinctively a butter-cow. But on such a farm as that just described, from which the milk can be sold for family use in town, this breed would be unsurpassed. When the cows have passed their most profitable period as milk-producers they may be readily converted into beef, as they weigh on an average one thousand pounds each, and their carcasses yield an exceptionally large supply of dressed meat.

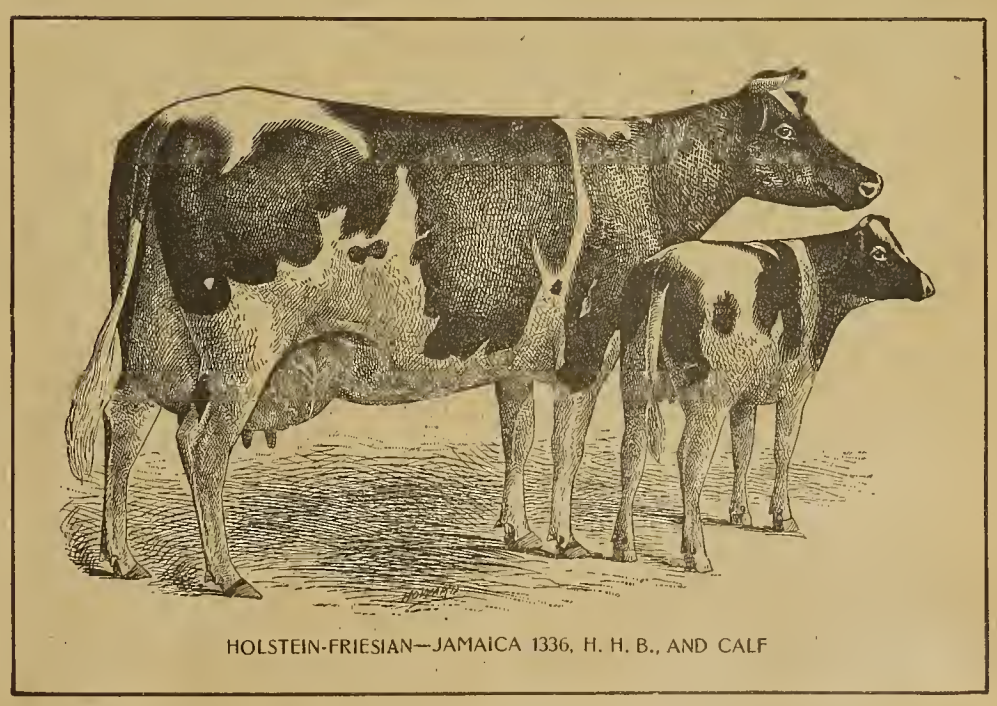
Or he might have tried the stocky Brown Swiss cattle, whose ancestors have ranged for ages over the rugged mountain-sides, keeping plump, productive and thrifty on the scanty herbage. Cows of this gentle, hardy breed, though so compact as to appear relatively small, weigh from twelve hundred to fourteen hundred pounds each, and average ten quarts of milk a day for every day in the year, the milk containing from three and one half to four per cent of butter-fat. These cattle are excellent as beef-producers. They are full-fleshed and easily kept so, while the flesh is fine-grained, tender and sweet.

Still another cow adapted to "long-range" pasturage is the beautiful Devon. Of a rich, deep red in color, with soft, fine hair and creamy-yellow skin, with straight, broad, level back, and form delicate and symmetrical in every way, the Devon is a cow that the owner comes to delight in.

[CONCLUDED ON PAGE 5 OF THIS ISSUE]



DEVON—MISS T 9605



HOLSTEIN-FRIESIAN—JAMAICA 1336, H. H. B., AND CALF

* Illustrations, by permission, from Alvord, U. S. Dept. of Agriculture, Farmers' Bulletin No. 106.

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WITH THE VANGUARD

WHEN Admiral George Dewey and General Joseph E. Wheeler were interviewed by the New York "Sun" on the capture of Aguinaldo both expressed some clear-headed views of the Filipino question. Admiral Dewey said:

"The capture of Aguinaldo means the end of the rebellion. We have all been looking for something of this sort ever since we learned that General Funston had started on the expedition to the haunt of the rebel leader. But it was a risky job, and none of us could tell whether we would hear from him again. It was a brave, clever deed, for which he deserves all credit, and I am awaiting the details of the capture with the greatest interest. Nothing I can say will add to the high esteem in which this daring young soldier is held, but just the same I want to add my word of admiration not only for this deed, but for all the work he has been doing in the Philippines.

"Now, Aguinaldo, who is an amiable little fellow, and not half so smart as he has had the credit of being, had a wonderful influence among these people of his, but he was not the brains of the insurrection. Mabini was the brains, and he is now in Guam; but still, as I said, Aguinaldo had a wonderful influence, which had a mystic, superstitious basis. His followers believed him invulnerable. A story was told all through the islands that twelve men had lined up in front of him and fired at him with rifle without harming him. Whether their aim was dreadfully bad or whether there were no bullets in the guns doesn't matter. The Filipinos thought their leader's life was charmed, and that gave him power. This is but an illustration of the kind of influence he exerted. It will take some time for the story of his capture to spread through the country, and at first the people won't believe it; but when they once realize it, it will have a quieting effect. The ideal will be shattered, and I fully believe all organized resistance will collapse, as it almost has now.

"I really do not think that Aguinaldo had any idea of independence at all at the beginning. He just hated the Spaniards and wanted to get them whipped, and he joined hands with us because we were trying to whip them. But the Filipinos were not our allies, any more than the negroes were the allies of the North in the Civil War. We used them, and they did what we told them to do, because it served both our ends, but there was nothing in our relations upon which to base a claim of the existence of an alliance. Manila really surrendered to me on April 1st, because the forts ceased firing at my demand, and white flags went up all over the city. I simply had no land force with which to take possession. Under those circumstances the Filipinos did what they could; but I repeat, there was no alliance. Some day I hope to write the complete history of our relations with the Filipinos. I have all the documents, and when the case is published in its entirety it will be made plain that no obligation rested on the Americans to treat the Filipinos as allies."

General Wheeler said:

"The one great trouble we have had to contend with out there is that the Filipinos have been systematically deceived as to the attitude of the United States. By every subterfuge and deception Aguinaldo has spread over the islands the idea that the United States would eventually withdraw from the field. The Filipinos were also deceived by him and his agents in regard to the treatment they would receive from the United States authorities in case they gave in. In some places Aguinaldo's name has been a magnet of enthusiasm; in many he has ruled the minds and acts of his followers by fear.

"In one town I was told that 'McKinley and a handful of his followers were the only people in the United States in favor of keeping the Philippines.' When I tried to undeceive the Filipinos I talked with, in regard to the truth of these opinions, they would tell me that the American newspapers were printing these very things. And at that time Aguinaldo was circulating broadcast among the larger towns of the islands clippings and extracts from those American papers opposing the war. The capture of Aguinaldo will convince these people that the United States government is there to stay."

SOUNDING a timely warning "Clews' Financial Review" says:

"The whole country is passing through one of its periodic waves of development, the inevitable accompaniment of which is always a 'boom.' As yet there are no weak spots in sight, and money, while firm, is not stringent.

"It is very difficult to fix on any period at which the current boom may be expected to end its course. It is altogether exceptional as to its causes. Its main stimulus centers in its connection with the great movement of industrial consolidation. The conversion of some $2,000,000,000 of corporate capital into a much smaller number of corporations with approximately $5,000,000,000 of nominal capital—of which $3,000,000,000 is common stock, based mainly upon good-will—amounts to a stupendous inflation, which has deranged the whole basis of investment values. The inflation of such an enormous aggregate of the productive capital of the country has the natural effect of inflating the market value of other forms of investment, among the first of which come railroad securities. It is assumed that if a process of financial reconstruction can be made to warrant a doubling of the capital of our manufactures, then an amalgamation of our railroads, our mines, our oil-wells and our steamship lines warrants a similar expansion in the market value of the securities representing those classes of investments; and thus the inflation has swiftly spread over every class of securities that finds its market in Wall Street.

"For the time being there is some basis for this immense expansion in the extraordinary run of national prosperity (which has found some parallel in the commercial activity of other countries), but which, however, is not to be reckoned upon as a permanency. The expansion of our industrial capitalizations is kept up with such persistency and on such a vast scale, it is sanctioned by such an array of influential names, and is underwritten by financiers of such great potency, that speculation knows neither caution nor limits. There seems to be no end to the creation of new deals, and each successive one adds new oil to the flame of excitement. Speculators reason that the larger the number of schemes, the larger the amount of capital committed to their support, and conclude that the greater the magnitude of the movement, the broader the basis of its stability and endurance. And certainly, so long as new schemes are forthcoming, launched under influential auspices and resulting in successful consummations, we may calculate upon the maintenance of a sanguine market and possibly even still higher prices than have yet been touched. In spite, therefore, of the occasional spasms of caution and even alarm which show themselves in sudden and very large liquidations, there are still enough new buyers to start upward reactions and keep up the steam, and few seem to have a decided conviction that the consummation of the boom is yet close at hand."

THE "Crop Reporter," a monthly publication under the authority of the Secretary of Agriculture, gives the following review of our agricultural exports:

"The value of the exports of agricultural merchandise from the United States during the fiscal year ended June 30, 1900, amounted to $835,858,123, exceeding any previous year save 1898, which amounted to $853,683,570. Exports of products other than agricultural have, however, increased since 1895 in a ratio of more than two to one, and, though there has been absolutely a heavy increase in agricultural exports, there has been a decline in the proportion they form of the total exports of all classes. In other words, exports of agricultural products have not kept pace with that heavy increase in the exports of other merchandise—notably manufactures—which has been one of the characteristic features of recent commercial history.

"From 1860 to 1895 there was no year in which exports of agricultural merchandise had formed in value less than 70 per cent of the total export trade. In 1895 they fell to 68.5 per cent of the total; and in the succeeding years, which will always be remembered as an era of marvelous industrial enterprise, there ensued a general, though irregular, decline, until in the fiscal year ended June 30, 1900, the exports of agricultural products amounted to but 59.94 per cent of the total exports. So rapid, however, had been the increase in the exports of products other than agricultural that this reduced percentage of the total trade represented, with one exception, an absolute figure much in excess of the amount represented by the higher percentages of previous years.

"The decrease in the proportion which agriculture has contributed to the total exports, or, probably better expressed, the increase which has taken place in the proportion furnished by products other than agricultural, is also illustrated by reference to a series of selected years, characterized by an exceptionally heavy export trade. The $1,000,000,000-mark in our total export trade was first approached in 1881, and in that year exports of agricultural merchandise amounted to over 80 per cent of the total. It was not until over a decade later that the total exports for the first time exceeded $1,000,000,000, and a slight tendency to increased exports in other than agricultural merchandise is evidenced by the fact that the proportion of exports furnished by agriculture then amounted to but 77 per cent. In 1897, when total exports for the second time had reached and exceeded $1,000,000,000, the proportion contributed by agriculture had fallen to 65 per cent; and in succeeding years, when the total exports constantly exceeded $1,000,000,000 annually, there was a general decline in the proportion composed of agricultural products until the low point was reached in the year 1900."

THE ON-LOOKER

IT WAS "ladies' hour" in a convention of farmers. A dozen topics had been assigned to as many women. One concerned the mysteries of bread-making. Another dwelt with that ever-present problem, the help in the home. To a bright-faced lady fell the question of intellectual culture in farm homes. Are there opportunities for reading and study? "Yes," said the winsome speaker; "I have no patience with the cry that there is no time. Why should one permit her work to engross all her time? There must be poor management. I cannot understand it." The ring of the voice was triumphant, and I thought to myself, "At last we have found the right one to discuss this subject. She has conquered the petty details of housekeeping." She continued, "The work is made hard by worrying over it. There is a lack of system. A household should be set in order, the dinner arranged for, and a little rest gotten. After dinner there should be abundant time for reading."

"But the children!" interjected one motherly lady.

"Why, set them to work. Let them help mother. They like it, and they learn at the same time."

That seemed good, sound gospel to my masculine ears. But soon the chorus began, led by our motherly friend, "Oh, I beg your pardon, but you lack experience."

Our bright solver of domestic problems was a school-teacher, a maiden lady, a rank theorist. I dropped back into my chair; the spell was broken; the theorist cannot be our law-giver. And the domestic problem went back into unknown, impenetrable depths, unsolved, unsolvable it may be.

It is experience that counts with us. And yet what is more misleading than experience? We gather up the results and label them for future use; but how well have we taken into account the factors that produced the results we made our guide? Not very well, usually. Few people are so constituted mentally that they can draw fair conclusions from any lot of facts. The unknown factors are always present. Influences are present that are unseen, unnoted. The outcome is dominated by conditions that might not exist the next time. All the causes are not assigned their true relative position in importance.

And yet how people do carry about these results, these conclusions based upon experiences, and stand ready to hurl them as invincible missiles at the heads of others! "I have tried this and know" is the conclusive statement when a position is questioned. Yes, dear brother, and so has your critic, with apparently opposite results. If you were to duplicate your experiment your results might confound you. If things could be learned for a certainty by an experiment then would all things be set down concisely in books, and all argument and all mistakes would then be at an end.

Nature is kind to us in many ways. Our comfortable assurance that we are right because taught of experience is not so often upset by the duplication of an experiment as one might reasonably suppose. This is due to our mental constitution. We begin the second experiment with expectation of certain results, and when we look for anything we usually are able to find it. Experiments have a trick of turning out about that for which we look. We are able to make them to do so without conscious interference.

The exercise of unconscious influence upon results bears peculiar fruits. It keeps the conservative conservative, and it adds fuel to the fire of the progressive. The old is held firmly, proved good by repeated experiment, and the new is given a royal welcome, supported by tests that make manifest its superiority. This applies to all things, from politics to potatoes. We get such proof as we desire, and get it with fairly honest purpose.

Shall we then refuse to trust experience, and shall theory be accepted as the guide for practical folk? No and yes. Let us give experience a more honest rating. It would teach truth if it had a true interpreter. Its proverbially dear school would be invaluable if we could learn our lessons aright. But we do not do anything aright, and less of all do we succeed in reading accurately the teachings of experience. Let modesty set a check upon our assumption of wisdom. Only then can we begin to appreciate the value of true theory. It develops truth, bringing to light the facts that we may need.

"Book-farming" is a term in deserved disrepute. It does not succeed, and success is a necessity. But the trouble often is not with the book, but with the man who does the farming. He is too purely a theorist. Like the experimenter, he forgets to use factors in his calculations that should influence results. There is a kind of middle ground. Studious of theory, watchful of practice, one should seek his truth—that which is true for himself. Most truth is not positive. It is a relative quantity. Hunting for it the successful man draws from theory and practice, and all sources are valued in the degree that they afford him what he wants—winning facts, the kind that help to success.

O—L.

ABOUT RURAL AFFAIRS

Disease versus Insects We have had an occasional grasshopper plague, but that the grasshoppers also have a plague of their own may be news to many readers. It is stated that grasshoppers are subject to a highly contagious and deadly disease—a sort of leprosy. Experiments made in Nebraska, Mississippi, etc., seem to demonstrate that the germs of this disease can be artificially cultivated, sent in vials through the mails and used for the spread of the disease among grasshoppers anywhere. This, if true, is good news. The least bit of infection will be enough to clear a farm entirely of grasshoppers, the modus operandi being as follows: The germs are placed in a tumblerful of water; a number of healthy specimens of grasshoppers are

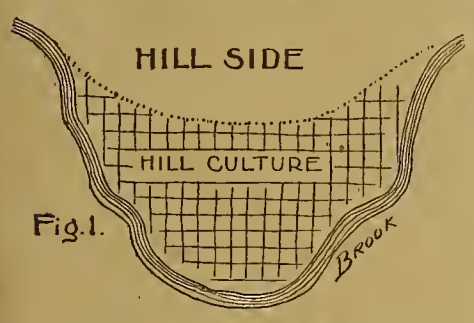

Fig. 1.

then selected, immersed in the water and afterward fed upon greens that have been dipped into the infected water. The disease rapidly develops, and the grasshoppers are given their liberty and permitted to spread the contagion. Poor grasshoppers! Between the multitudinous birds which make grasshoppers their main diet when the latter are plentiful; the chicks, turkeys, ducks and other domestic fowls which are no less fond of juicy hoppers, and skunks and other four-footed animals (pigs among them) which also devour their share of the fat jumpers, the poor hoppers have a hard life, and often an early death. And it is only in comparatively few seasons that the hoppers come in such numbers as to do serious damage to our garden crops. But there are lots of other insects which do, and if we can find and cultivate a disease that will destroy the grasshoppers I don't see why our scientific men should not be able to discover infectious and fatal diseases of other insects, and thus give us an easy means of fighting and conquering such insects without much effort on our part.

Drills versus Hills It is an often-disputed question whether it is better to plant corn and potatoes in check-rows so that these crops can be cultivated both ways or to plant them in drills somewhat closer together and cultivate only one way. The answer, I believe, depends largely on circumstances. If I had a piece of gravelly soil, full of stones and encumbered with all sorts of persistent grasses and weeds, I

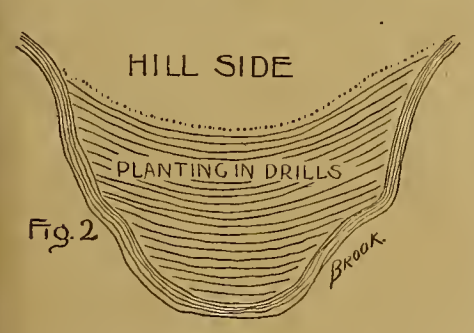

Fig. 2

would prefer the hill method as being a surer and easier way of keeping the weeds down. On my own soil, which is free from stones and also from really bad weeds, I almost invariably plant in drills. The potatoes are put from twelve to eighteen inches apart in the rows (Early Ohios, etc., the shorter distance; later potatoes twelve to eighteen inches apart), while corn is planted so that there will be two or three stalks every two feet in the row. I can thus raise more potatoes and slightly more corn on a given area than if I were to plant in hills three to three and one half feet apart. I have little trouble in keeping the patch clean from weeds, so long as I make prompt and frequent use of the spike-toothed cultivator, and possibly of the modern horse-weeders. This fine-toothed cultivator (or harrow-cultivator) can be run close up to and into the rows without injury to the plants, and when done the whole patch looks as if it were freshly harrowed. Of course, the fine teeth do not cut out large perennial weeds such as thistles and docks, but I always cut out the few growths of this kind with the hoe. It does not take long to go over an acre of ground.

Narrow fields I would always mark out and plant one way only—of course, the long way. But I know farmers who are bound to plant everything in hills, no matter how small the piece of ground. Years ago I used to do that myself. If we have a patch shaped somewhat like the one illustrated, and plant it in check-rows as shown in Fig. 1, you will readily see what a lot of turning it takes to cultivate it both ways. How much different if you lay it out and cultivate it as shown in Fig. 2. You can then go twice in a row in little, if any, more than half the time it takes to go over the patch once in both directions. And what a lot of plants it will save at the ends from being tramped down or cut to pieces by the horses' hoofs!

Carbide Refuse I have a query from E. S. P., of Racine, Ohio, in regard to carbide refuse and its value for application on soils where lime is needed. The bulk of this substance, no doubt, consists of lime and carbon, and theoretically it should have the same effect on the soil as carbonate of lime or as a mixture of lime and charcoal. But while we have such an abundance of carbide refuse in this immediate vicinity that we have used it as a foundation for sidewalks (cheap and very fair when covered with fine cinders) it is yet a rather new thing, and its full effect for agricultural purposes has yet to be found out. It is said to be one of the best things to drive insects away, and from its smell when freshly applied I can hardly have much doubt that insects will be repelled by it. The arrival of calcium carbide and the acetylene-gas generator opens up a new field for investigation on these lines. In the last issue of the acetylene-gas journal I find the following remarks about carbide as an insecticide and mildew remedy:

"For many years two of the most destructive agents known to grape-growers have been the phylloxera, a species of curl affecting the roots of the vine, and mildew of the foliage and fruit. As early as 1896 some very favorable articles appeared in the press describing experiments which have been carried on in Spain, on the destruction of the maladies named, by means of calcium carbide, or nascent acetylene. Soon after the government chemist of Switzerland repeated and elaborated the tests, treating some badly affected vines. Part of the soil surrounding the roots was removed, one hundred grains of roughly powdered carbide were inserted in the hole, the earth was rapidly put back in place and well consolidated. The upper part of the plants which were in a sickly condition was not touched or treated in any way, but in a few months the vines put forth fresh leaves, and by autumn no parasitic growths could be discovered on any of them. Further experience in the use of carbide for the purposes stated has shown that the chief destructive agent is the phosphoreted hydrogen of the crude acetylene, and with a view to further testing this method of curing vines a special carbide is being prepared in one of the Swiss factories from a mixture of coke, lime and calcium phosphate. A spray of carbide-dust has already been employed in France to remove and kill mildew, and the vine-growers are reported to be distinctly pleased with the results, asserting that a single application is sufficient and that the effect is more permanent than that produced by any other remedy."

I believe that this matter is one of great importance and may lead to very satisfactory results. I propose to make extended tests with the fresh refuse, applying heavy dressings to alternate rows of my grapevines. This refuse contains still a considerable quantity of acetylene gas, and it emits a powerful and somewhat disagreeable smell. But it may have great value, after all. I can get all I want for the hauling (about three miles). By another season I hope to be able to tell more about it.

T. GREINER.

A GOOD INVESTMENT

The man with "a little money" never had a better chance for investment than right now. In stocks and bonds? No. In partnership with some elderly farmer who has a good farm and wants a partner to work it. —Rural New-Yorker.

SALIENT FARM NOTES

Improving the Yards If one has any grading or ditching about the yards to do now is the time to do it. Soil that is moved now will settle solid almost immediately and be as firm next fall and winter as soil that has never been moved. If the work is put off until the latter part of May a muddy yard or road next winter will be the result. If water does not flow out of the yards, garden or stock-pens quickly after a heavy storm, wide, shallow ditches should be made now, and if possible that from the stock-pens should be made to flow on pasture or meadow land. It is not a good idea to have deep, narrow ditches about the yards. They should be made six or eight feet wide and not more than eighteen inches deep.

Brick Walks A correspondent who says he lives where mud gets deeper than in any other part of the world during the winter months asks for the best method of constructing a brick walk from his house to his barn. There are quite a number of brick walks in this locality, and all were constructed in the same manner. The earth was removed to a depth of about ten inches and the space filled with coal ashes and cinders, which were well tamped down as put in. A row of bricks set edgewise was placed on each side between the cinders and earth, and between these two rows the bricks were laid flat on the tamped cinders. After they were laid, ashes and sand were scattered on the walk and swept into the chinks with a broom.

Arbor-vitae Makes a very pretty hedge when kept neatly trimmed from the beginning; but if one wants a hedge that is graceful all through the summer, and one of the most beautiful things in the world when in bloom, he should plant Spiraea Van Houttei. The plants should be set three to four feet apart, and they need no pruning except to shear a little off the drooping branches along the sides. When in bloom it is a perfect snow-bank—a sight to be remembered as long as one lives. I only wish some one had told me this ten years ago, or that I had seen a hedge of it in bloom. Plant a row down one side of the lawn or across the front if you take delight in beautiful things. The height it grows depends largely upon the soil. In rich soil it will grow about five feet high; in lighter soils less. Pruning, if done at all, should be done immediately after the bloom is off; but it is so slender and graceful one does not care to touch it with shears.

FRED GRUNDY.

A "POVERTY" CUFF

The other day I met a friend who was walking along at a swinging gait and unconsciously exposing a long, brown cuff from under his right coat-sleeve.

"Good-morning, Brown. What kind of a 'poverty' cuff is that on your good right hand?" I inquired.

"There is no 'poverty' about that cuff," he replied. "It's the best thing I ever wore—for a lame wrist."

"Oh, oh!" said I, "have you hurt your wrist? How did it happen?"

"No matter how it happened. I sprained it two weeks ago, and it is nearly useless yet. The doctor pinched and twisted and bent it, and then said that no bones were broken, but that it was a 'bad sprain.' It seems that he was right. He made me carry my arm in a sling, and every time some one touched me or I dodged some one who was likely to run into me on the tender side I had a twinge that was decidedly uncomfortable. Every movement, as you might suppose, would bend the inflamed joint a little too much. Then I invented this thing." And he held up his right arm to show his "protector."

It was nothing but a long, narrow cuff of thin strawboard rolled together until it became a strong and stiff cylinder, as small as he could put his hand into.

"You know," he said, "or should know, that after the first week a sprained ankle or wrist is not very painful except when you bend it. Now, this thing won't let me bend my wrist. It makes the forearm carry the hand when it is extended, and at all times keeps the wrist from bending more than the allowable amount."

"It must be a good thing," said I; "you ought to patent it and make your fortune out of your accident."

"I guess not," was his reply. "Any one with sense enough and skill enough to make a cuff like mine is welcome to the idea." He then advised me to write it up, and I have taken his advice.

D. W. WORKING.

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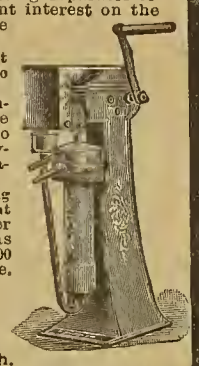

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OUR FARM

FARM THEORY AND PRACTICE

Our Wheat-fields.—In the winter-wheat section our wheat-fields now present a pretty faithful record of the past treatment of the soil of those fields. We can see the results of early and late seeding, of fertilization, of drainage, of good and of poor preparation of the seed-bed, and the effect of the preceding crop upon the growing crop. Nothing can be more interesting to one who is farming for income, and not merely from force of habit, than study of his own and his neighbors' fields whose treatment he knows all about. The mistakes now show up plainly.

Where snow protection is not sure the stand of plants is rarely so good as we should like to have it. Last fall I tried somewhat heavier seeding than formerly, and results please me. I had read of big yields from very little seed to the acre, and these are possible, but my rule was one and one third bushels to the acre. This was sufficient in the best years, but last fall the amount was increased to seven pecks to the acre, and I believe this amount is just about right for ordinary wheat-ground well prepared and seeded fairly late on account of the Hessian fly.

It is true enough that one half bushel of wheat, or even less, properly distributed in very rich soil can give a thick stand of plants by tillering freely, but wheat is rarely sown on the richest land except when following an exhaustive crop. It is safer not to depend so much upon tillering, and so long as I have more to fear from too thin a stand of plants than from too thick a stand I shall not cut down the amount of seed used last fall.

Good drainage favors wheat wonderfully in a hard winter. It is a pleasure to see the best wheat this spring on the portions of three fields that formerly would show up poorest in the spring because the wet soil caused heaving. That low land is thoroughly tiled, and now the poorest wheat is on the high land that was supposed not to need drainage. One wet place had no underdrainage, but surface-drains helped out. I spent only a few hours last fall with plow and shovels making ditches as soon as the drilling was done, cleaning out the furrows and leveling down the furrow-slices, so that the surface was left level, and that work paid well. Wheat-plants will not stay in water-soaked land.

In the black soils of the corn belt it is often possible to get a maximum yield of wheat from corn-stubble, but outside of these areas of very rich land wheat seeded on corn-stubble will not give a full yield four years out of five. It is my observation that one cannot depend upon more than two thirds to three fourths of a crop when wheat follows corn on soils of ordinary strength. The corn uses up the available fertility and the moisture near the surface too thoroughly to secure the needed fall growth. The rotation is a necessity with many of us, but there is little profit from the wheat.

Again there is evidence that sod, oat-stubble, etc., that must be broken for wheat should be plowed early. My best fields were prepared early. This experience is in accord with the results obtained at the experiment stations. Farmers' Bulletin No. 122 sums up a number of station experiments as follows: "The results secured in all these experiments are quite uniform in showing the good effects of early plowing for fall wheat. Briefly stated, early plowing, followed at intervals by harrowing, prevents the growth of weeds, conserves the moisture of the soil, keeps the soil in good tilth and results in the formation of a seed-bed best suited for prompt germination and growth of the seed. The cost of preparing the ground is lessened, the yield of grain is increased, and the practice is financially profitable."

Clover-seed.—The high price of clover-seed has brought a lot of poor stuff upon the market. It is simply amazing that buyers for some of it can be found, and yet I know intelligent farmers that are sowing seed that I should not dare use if it cost me nothing. How can such indifference be accounted for? It is perplexing and disheartening to one who wants to see farmers succeed. All over this country we see foul fields as a result of carelessness in buying grass and clover seeds. A little study of the more common weed-seeds found in clover, and a slight examination of the clover-seed offered for sale, would demonstrate the fact to many farmers that their past carelessness has been costing them dearly. The bad weeds in their fields are largely due to foul grass-seeds, for which they have paid good money. Last year's clover-seed crop was poor in quantity and quality. Dealers not only offer for sale filthy seed, but some of them adulterate good seed with yellow-trefoil and Hungarian-grass seed. In this way they can make the price lower than that of competitors.

Such adulterants do less harm than the seeds of bad weeds. They cause one to fail to get as much clover-seed on the ground as is wanted, and the plants take the room of the needed clover; but it is the dodder, broad-leaved plantain, buckhorn and like plants that are most to be feared. Let me urge again upon readers that they learn the appearance of all weed-seeds usually found in clover, and be ready to identify such seeds. It is not business not to know what one is buying. Thrust a moistened finger into the seed one proposes to buy and then examine closely the layer of seed that adheres. All filth and all brown, dead seeds can then be detected with ease. Bright, clean, plump clover-seed is worth a big price a bushel this spring; light weight and filthy seed is worth less than nothing. Buy clean seed; if it cannot be gotten, keep the money and wait another year. By all means learn to know the appearance of pestiferous weed-seeds. Examine the weeds as they ripen seeds this summer, and save and label samples of them for reference.

Grasses for Pasture.—The Ohio Experiment Station gives good advice when it recommends blue-grass, redtop, red clover and timothy for permanent pasture. The red clover enriches the ground and soon runs out. The timothy furnishes feed while the slower blue-grass is getting started. The redtop furnishes good pasturage between the two growths of blue-grass, which is at its best only in spring, early summer and fall. The timothy will give way when the blue-grass becomes well rooted, and the redtop will do so more or less on land that is not naturally moist; but these three grasses should be used in the formation of a permanent pasture wherever they thrive. David.

EASTERN NEW YORK HORTICULTURAL SOCIETY

SELECTIONS FROM ADDRESSES AND QUESTION-BOX

Professor John Craig, of Cornell University, made an address on "Observations in Orcharding in Western New York." He said that in the apple districts in western New York the large blocks of trees bearing apples of a single standard variety were paying the best. The problems in orcharding may be divided into pruning, spraying and tillage. Do not prune heavily at long intervals, as it throws the tree out of its normal balance. The better way is to do some pruning every year. Spraying has now been reduced to a science. Experiments at Cornell University showed that spraying trees when in bloom is generally a dangerous practice. During the years when the trees are heavily laden with bloom we can spray when in bloom with safety, as it will do no harm to destroy some of the blossoms; but when the bloom is light the trees should not be sprayed when in bloom. I do not advise the practice of spraying trees when in bloom, as some bees will be killed.

On the subject of tillage he said that it was generally practised in western New York. The buyers sometimes prefer the apples from orchards where the trees are growing in sods. Apples from the cultivated orchards may contain more moisture, and may be looser in fiber, and therefore may not keep so well. The cultivated orchards are more productive, and I do not think we should stop cultivating orchards altogether. There is a medium in cultivation which I think we may safely follow. I would cultivate early in the season, then in midsummer sow some kind of a cover crop and stop the tillage. The length of time the orchard is cultivated should depend on the season, as more cultivation is required in a dry season. The best cover crop is clover if you can grow it. If you cannot grow clover or any of the legumes, sow rye or buckwheat. Crimson clover is uncertain in all regions where peaches cannot be grown. Alfalfa makes a good cover crop, and it is more hardy than crimson clover. Sow it in midsummer and grow it only as an annual that is plowed under every year.

W. H. Jenkins.

COST OF THE FARMER-BOY

Every little while we see elaborate articles going the rounds of the papers setting forth the cost in dollars and cents of raising the farmer-boy from a baby to manhood. Beginning with his entrance into the world, these writers tell us what it is worth from year to year to furnish him with clothes, food and shelter until he reaches manhood's estate and goes out to battle for himself.

Now, this seems to me a pretty cold-blooded way of looking at this matter. It is reducing the thing to the same basis we use in estimating the cost of raising a calf or a colt, and I decidedly object to it. I was a boy myself once, and I remember that I grew "like a weed," and that my grandmother thought I must be "hollow to the ends of my toes," judging by the way I used to eat, and that my clothes had a way of getting torn in places most mysterious to me, causing me no end of trouble. I was sensitive in all the ways that boys usually are, but if I had known that any one was actually keeping an account of the cost of my raising I think it would have about broken my heart.

No one can place a proper estimate on the value of the boy to his parents. I am not now speaking of the amount of money he can earn. We all know that for a number of years the little fellow cannot do a very great amount of manual labor. I think many men expect too much in this way of their boys. When the lad grows up feeling that his importance is reduced to the mere question of what he can do in the way of paying for his keeping, life ceases to be very charming. He grows up with a dislike for the old farm, where he was reckoned in the same category with the young stock on the place, and as soon as he can he hies him away to town and is lost in the rush that grinds the life out of him.

But think of the many ways in which the boy on the farm adds to your comfort and happiness. How many, many steps he saves you when the days are long and weary. How ready he is to help you. It is the greatest joy of his life that he is looked upon as "father's helper." He will run his little legs off at play, but if he thinks he can do something to help he will go on awhile longer. I mean, of course, if he feels that his services are appreciated; if he is scolded at, and compelled to do his work whether he is tired or not, the joy all fades out and life on the farm becomes a drudgery.

Then as the boy grows a little older, if he has been recognized as a part of the family, and not as a creature whose presence is simply tolerated, he is able to save the steps of the father and mother more and more. His very presence, if he be a true and faithful boy, is of inestimable value. His limbs are strong and his mind active to plan and to execute the work of the farm. I believe every father should show the fact that his son is of value to him over and above the bare cost of his living very early by allowing him some part in the stock and by putting into his pocket now and then a bit of money.

But right here is a danger-point which we may well avoid. I have known of some boys who were ruined by the indulgence of their parents in this respect. The trouble began with the father or mother hiring the boy to do every little duty which is asked of him. It is not well for the boy to begin life thinking that he must have pay for all he does. I would not allow a son of mine to accept pay for the trifling things he does for a neighbor or a friend. Selfishness naturally crops out in most of us very early; we cannot afford to foster it in our children. We all can recall instances where sons have grown up feeling that their fathers' only care was to get all out of them they could, the end being that the son rose against the father and finally rooted him out of the home nest. I have in mind one such case now. The son had been educated in the school of selfishness at home, and at last turned his poor old father out to die in the poorhouse.

Let the boy have a little money now and then, however; not to reward him for his service, but to teach him its worth, and he will almost always use it to good advantage. The best way I know of to create an interest on the part of the boy is to give him a calf or a sheep, with the understanding that no matter what comes that is to be his, with whatever of revenue it may produce. When the animal is sold let the boy have the proceeds; but let him know that you think it would be a fine thing for him to have some share in purchasing the suit of clothes he needs next fall. Help him to pick out that suit; pay for some part of it yourself, so that the lad may have a little left for something else. Try to create a spirit in your son which shall recognize the value of money—not in a sordid way, but in the truest and best sense.

But I do think it is the very height of meanness to figure out in dollars and cents the cost of the boy's bringing-up, and to let him know you are doing it. The day will come when you are old and struggling on alone with your farm-work. Then you will wonder why it is the boys never care to come back to the old farm or seem to care how hard it is for you to get along. Then you will be reaping the harvest of selfishness, knowing all the time that yours was the hand that sowed the seed.

The true worth of the boy cannot be estimated in gold. His value to the world is counted by what he does to make humanity better. Is he a good citizen? Does he do his work well wherever he is? Does his heart grow purer and better as the years roll by? Does he love his father and mother more and more? Is he honest and earnest in all things? This is the reward you are to seek in starting the boy out on the road of life. Dollars pass into eclipse when placed side by side with the true estimate of manhood.

In this day and age of the world there is a tendency to bring everything down to a basis of profit and loss. This is right if we have right ideas as to what profit and loss really mean. The utilitarian and the truly useful are vastly different things. There may be some who will think the ideas set forth in this article are antiquated. At the risk of this I am firmly of the opinion that the farmer's boy ought to stand immeasurably higher in the eyes of his parents than the money it costs to rear him.

Edgar L. Vincent.

AN EXPERIENCE WITH VEAL-CALVES

Buttercup is a small cow five years old and looks like a Jersey, although she is only a grade—half Shorthorn and half Jersey. On February 5th she dropped a bull calf, and we called him Butter. Brindle is a large cow eight years old, is always fat and has the look of an almost typical beef-animal. On February 6th she also dropped a bull calf, and we called him Brind. Both calves were by the same sire, a pure-bred Shorthorn. Both calves were set apart for veal.

At four days old Brind was taken from his dam. It is believed that he was the larger calf at this time; certainly he ought to have been. After this he was fed new milk at about six o'clock in the evening and about the same hour in the morning. Meantime Butter was doing his own milking about the same hour in the evening and whenever he pleased between that time and six in the morning.

The calves grew apace, both of them seeming to make satisfactory progress without noticeable derangement or backset. On the morning of March 8th both calves were put on the scales, Brind weighing one hundred and thirty pounds, Butter one hundred and thirty-five pounds. Six days later both were slaughtered and taken to the butcher. Brind dressed eighty-five pounds, Butter ninety-five. The carcasses sold at ten cents a pound, the difference in value being one dollar. In addition it was noticed that the heart and liver of the larger calf were larger than the same organs of the other. The question that naturally arises is this, Did it pay to wean the brindle cow's calf? The answer cannot be made with a positive yes, but it seems worth while to mention a few additional facts to enable each reader to answer the question for himself.

It seems that both calves drank about the same amount of milk for the first four weeks. After that the calf that sucked evidently got more than the other—anywhere from one to four quarts a day, say half a gallon a day for the last ten days of his life. At that time milk was selling at the barn for ten cents a gallon. Butter, therefore, cost fifty cents more than Brind. But suppose that this estimate is too low, and that the larger calf cost a dollar more to feed than the other.

As the difference in value of the calves was one dollar it would seem that the larger one earned his extra allowance of milk. He also did his own milking, thus saving the work of drawing the milk and feeding it. Dairymen say that it costs two cents a gallon to do their milking. As Buttercup had to be stripped after Butter had his supper, and again after his breakfast, suppose we allow him only one cent a gallon for the milking he did—say two gallons a day for thirty days, or sixty cents. Will it not be safe to conclude that it was profitable to allow Butter to do his own milking, and that it did not pay to wean Brindle's calf?

D. W. Working.

THE DAIRY-COW

[CONTINUED FROM PAGE 1]

Yet this delicate creature is hardy and active, will thrive on meager pasturage and readily adapts herself to change of climate and situation. The Devons are good rather than great milkers, but the milk is rich in quality, readily yielding an abundance of cream; it ranks next to that of the Guernseys and Jerseys in percentage of butter-fat and in high color.

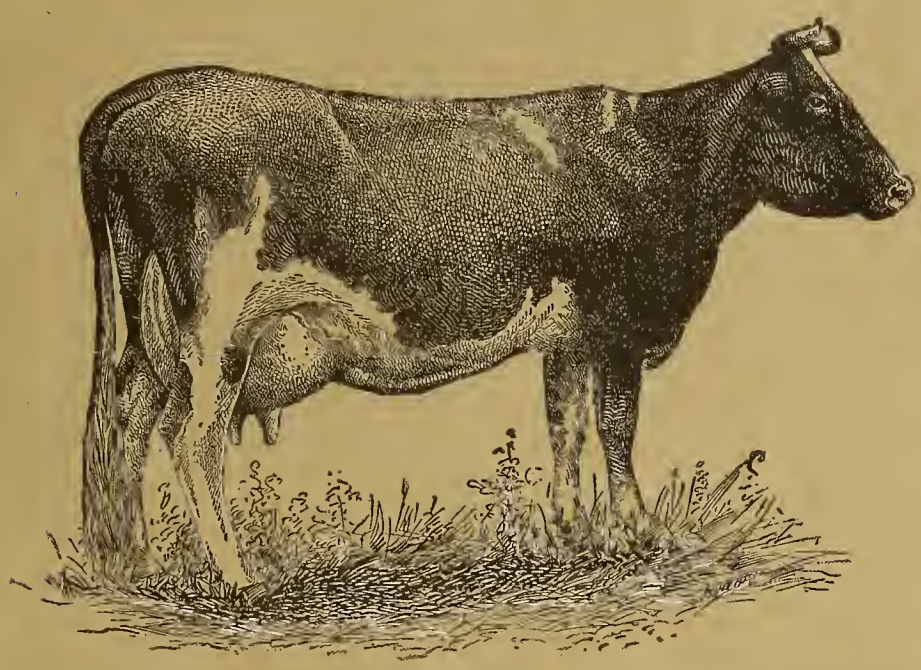
But now comes the case of the farmer who has a small acreage of mainly level or gently rolling land yielding an abundance of good feed. His choice should be of a breed possessing moderate muscular activity combined with the power to utilize an ample supply of nutritious food, converting it readily into dairy products.

If quantity of milk is his prime requisite, without special reference to butter-making quality, he should get the well-known Holstein-Friesians, of which type a beautiful specimen is figured in the illustration on the first page. This cow, "Jamaica," imported from Friesland in 1880, gave when four years of age one hundred and twelve pounds and two ounces (about thirteen gallons) of milk in a single day, and in four months gave almost ten thousand pounds. This was upon a special diet of grain, roots and hay, but with no silage, slops, stimulating food or drugs. Cattle of this breed require a great quantity of rich food to support their vast frames and great milk flow, and this procured with small exertion.

But if the farmer's object is butter-making, he should choose one of the Channel-Island breeds, either the Guernseys or Jerseys. The two types are near akin, the Guernseys being larger than the Jerseys, the cows averaging about one thousand pounds in weight, and are therefore more profitable for beef upon occasion. At the same time they excel even the Jerseys in the secretion of coloring matter, making their butter at all seasons richer in hue than that of any other breed. Grades of this breed make admirable dairy-animals.

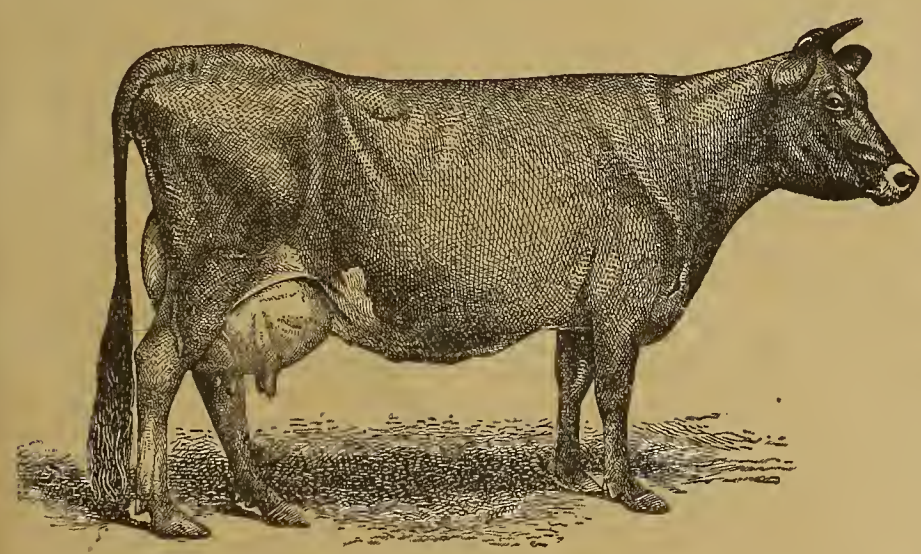
The Jerseys are too well known to need special description. Mr. Alvord says, "For scores of years Jerseys have been bred especially and almost exclusively for butter. There was no demand for milk on the home island, and the whole effort was to increase richness and add to the product of butter. In America breeders have striven with success to increase the milk yield while maintaining its high quality. Two, three and four gallons a day are common yields. These cows are noted for persistence in milking, making a long season of profit with great evenness of product until near its close." The characteristic enterprise of Americans is shown also in a perceptible increase in the size of cattle of this breed raised on American soil. After citing various records of from nine thousand up to nearly seventeen thousand pounds of milk in a year Mr. Alvord remarks that "good herds are depended on to produce three hundred and fifty to four hundred pounds of butter for every milking-animal fed the full year." The milk contains a large percentage of total solids, the butter-fat reaching four to five per cent or more. In the official tests of selected herds containing from fifteen to twenty-five cows each at the Columbian Exposition the highest net profit of product over cost of feed was in every instance credited to the Jerseys.

The farmer who desires the advice of experts will be treated most generously and courteously by applying, with simple statement of his needs, to the United States Department of Agriculture, Washington, D. C. Valuable publications will be sent him free of charge. On the subject of this article he will find very full information (to which the writer is largely indebted) in Farmers' Bulletin No. 106, "Breeds of Dairy-Cattle." He will find there, also, excellent descriptions of other breeds which may for some reason better suit other situations than those here described. With this he would do well to combine No. 55, "The Dairy Herd," and No. 56, "Experiment Station Work—I.," containing a discussion of "Good versus Poor Cows."



GUERNSEY—FANTINE 2d 3730

Fantine 2d 3730 was bred in this country, while her sire and both parents of dam were imported. The likeness was made when she was eight years old and within a few weeks of calving; her udder is shown not more than two thirds filled. At that age she made a record of 9,748 pounds of milk and 603 pounds of butter within eleven months. Her best day's yield was forty-seven pounds of milk, and her best month (the second—December) was 1,318 pounds of milk, containing seventy pounds of butter-fat, equivalent to eighty-one and one half pounds of butter. In four different months her milk yield was greater than her own live weight.



JERSEY—BROWN BESSIE 74997

Brown Bessie became famous as the champion butter-cow at the Columbian Exposition of 1893. She was then eight years old and weighed 1,040 pounds. She was bred and raised in Iowa and Wisconsin. During the public tests mentioned, under very unfavorable conditions, this cow averaged over forty pounds of milk a day for five months, her total yield being exceeded (by seventy pounds) by only one of her seventy competitors. She made three pounds of butter a day several times, twenty and one half pounds a week, and ninety-eight pounds more than any other cow in the entire test.

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The Franklin County Creamery Association, St. Albans, Vt., uses nearly 100. So does the Standard Butter Co., Owego, N. Y.

The Brady-Meriden Creamery Co., Kansas City; Parker Creamery Co., Hutchinson, Kan., and John Newman Co., Elgin, Ill., all use over fifty machines each.

The St. Marys Creamery Co., St. Marys, Ont.; Fairmont Creamery Co., Fairmont, Neb.; McCanna & Fraser Co., Burlington, Wis.; Belle Springs Creamery Co., Abilene, Kan.; Forest Park Creamery Co., Edgerton, Kan., and the Hesston Creamery Co., Newton, Kan., all use from 25 to 50 machines.

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NOTES FROM GARDEN AND FIELD

CONDUCTED BY T. GREINER

FRESH VEGETABLES VERSUS STALE.—In a leaflet on salad-plants sent out by one of our big seed firms I find the following sentences in italics: "Salads wilted are salads spoiled. No amount of water will restore their lost freshness." Quite right; and the remark might be given a much more general application. Vegetables wilted are vegetables spoiled; and berries wilted are berries spoiled, likewise. You will sometimes find very nice lettuce, radishes, etc., on sale in some grocery, yet the average of such stuff kept in even high-grade city groceries is poor stuff indeed. I am exceedingly fond of asparagus. Just at this time of the year—a month or so ahead of our regular asparagus season—I am sometimes tempted to look over the grocer's vegetable display with a view of finding some asparagus (from the South); but it is seldom that I buy any, for my appetite wanes when I see the wilted stalks offered at a big price. The brittleness is gone, and my desire for asparagus with it. If I can find canned asparagus at a reasonable price I may buy some, but the stuff shipped from a distant point and then exposed to wilting is not what I want. It is the same with strawberries. Usually I could hardly find fault with the price of Southern berries. Often they are much cheaper than our home-grown product later on. But they seldom look inviting enough to tempt me; as a gardener I am used to better things. How crisp and nice and sweet is the lettuce, with or without the spicy and pleasingly pungent cresses, that I have on my table almost every day during the winter from my little greenhouse! How brittle and tender the asparagus that comes from my own patch in the spring! How tempting the berries in all their lusciousness and freshness as they are gathered by members of my own family with clean hands! How different the peas and the sweet-corn that come to the table just a couple of hours after being gathered in the field from those that are prepared after they have laid around on the tables and shelves of the grocery for a couple of days! Verily it has its compensations to be a "horny-handed tiller of the soil!"

GROWING BERRY-PLANTS FROM SEED.—Just at this time I am overwhelmed with all sorts of queries, and I will try to reply to as many of them as I can find room for in these columns. A Canadian reader has an idea that he can start a raspberry plantation from seed. It would be a rather tedious job, I believe. The seeds are very fine, and the plants by no means started as easily as corn or beans. But provided one could succeed in getting a stand by sowing seed in hills and then thinning to one plant in a hill, it would take two years more to get the plantation in bearing than by the safe method of setting plants. In fact, the ordinary soil-tiller has no choice. He must procure plants of the variety desired and as good and strong ones as can be had, and set them in well-prepared and suitable soil. On the other hand, I would not object to any one raising seedlings with a view of getting some improved sort. But this should be done with a well-defined aim, and by selecting parent stock, crossing varieties, etc., in accordance with that aim. A Colorado reader asks me how to start strawberry-plants from seed. He has planted many thousands of seeds, but not one in ten thousand ever came up. The great trouble is with the fineness of the seed and the time required to get them to start. I have never made a business of growing small-fruit seedlings, but the process is about the same for most of them. Gather the berries selected for seed, then mash them and wash out the seeds; or mix the pulp with fine, dry sand and immediately sow them in shallow drills in boxes of clean, fibrous loam. Cover the seeds with a little fine soil or sand, firm well, and set in a somewhat shady and protected spot, never allowing the soil to get dry. You will most likely succeed in getting a good stand of plants in this way.

HEN MANURE FOR THE GARDEN.—A reader in Binghamton, N. Y., has a little garden (fifty feet square); soil gravelly loam, and nothing in the way of manure except a few bushels of hen droppings. How to apply them to best advantage is the question. A small garden, and a small amount of material to manure it, indeed. I think highly of hen manure for vegetables, as my friends know. But the quantity seems hardly enough to maintain the fertility of the garden right along to its full productive limit. My way of applying poultry droppings is usually by scattering the manure after it has been well mixed with sifted coal ashes, dry muck or soil—all used for absorbing materials under the perches, and then quite dry and fine—evenly over the freshly plowed surface of the garden, mixing it well with the soil by means of harrow, cultivator, rake, etc. In the present case I would try to get additional manurial help, such as wood ashes from the cook-stove, sweepings from some near-by blacksmith-shop, etc.

EARLY POTATOES.—A reader in Conquest, N. Y., asks me to name the best method of applying chemical manures for potatoes; also, how long a time seed-potatoes should be cut before planting for best yield. I usually open the furrows, or trenches, scatter the fertilizer along the rows in a wide band, then mix the fertilizer with the soil in the trenches by running the furrower once more in the bottom of each trench, then planting the potatoes and covering with the covering attachment of the horse-hoe. In this way the fertilizer gets well distributed all through the soil, and the plant-roots will find it as they require it in the course of the season. When potatoes are to be planted with a hoe, on a small scale, I would apply the fertilizer broadcast after plowing. I always cut seed-potatoes, if at all, just before they are wanted for planting. If they are cut any considerable time before planting it would be a good thing to sprinkle plaster over them, to cover and dry the cut surfaces.

INQUIRIES ANSWERED

Growing Hubbard Squash.—J. L. T., Greenville, Ill., wants information about growing Hubbard squashes. He meets with great difficulties, on account of the bugs and beetles. My way is to use plenty of seed, cover the ground around the plants deeply with fresh tobacco-dust and bone-meal, spray occasionally with Bordeaux mixture and arsenical poisons, and continue planting in the expectation that at least a fair proportion of the plants will escape injury.

Seed-growing.—J. A., Leavenworth, Wash., wants some information on the growing of onion-seed, or to be referred to some book on vegetable seeds in general. To grow onion-seed, plant well-kept bulbs a few inches apart in well-prepared rows three feet apart. In a small way it is best to stake the plants, as very heavy winds are liable to break them over. When most of the seed has ripened cut the seed-heads and put them on a sheet in a dry place to dry, then thresh them, clean the seed by running through a fanning-mill, and finally by washing in clear water. The light seed floats and can be poured off; the good seed falls to the bottom. Dry and store. The only book on seed-growing that I know is Brill's "Farm Gardening and Seed-growing"—and a good one it is.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Grafting the Peach—Mountain-ash.—F. E. C. The peach does not graft readily at the North, and it is preferable to propagate it by budding some time in July. I think the chances are that it will do best if you work it upon the plum in Minnesota, where it is quite tender and must be protected in winter. But it may possibly do very well upon the sand-cherry. I do not know in regard to this latter point.——Better graft the weeping mountain-ash on the European mountain-ash.

Plum-rot.—J. C. C., Reibold, Pa. A good remedy for plum-rot is to spray the trees with thick Bordeaux mixture—that is, made at the rate of five pounds of lime, four pounds of sulphate of copper and twenty-five gallons of water—before the buds commence to expand, and later, after the blossoms have fallen, spray with ordinary Bordeaux mixture made of four pounds of sulphate of copper, five pounds of lime and fifty gallons of water. This latter should be repeated about once in two weeks during the early part of the season, and I think it will very much lessen your loss from plum-rot.

Chestnut-trees.—E. J. S., Columbus, Ohio. Chestnut-trees generally come into bearing when they are about nine years old. Probably the best way to grow them would be to plant them about thirty feet apart each way, allowing them to branch out at about the same height as you would apple-trees, as this will permit of their being easily cultivated. The land between the trees can be used for some farm crops, as this would probably not interfere with their growth. It is probable that the best American varieties will prove most profitable, but in some sections the European variety known as Paragon and the imported sort Numbo have proven more desirable.

Pruning Old Grape-vines and Peach-trees.—L. P. B., Hicker, Pa. In the case of old grape-vines that have been neglected for years you will probably get best results by sawing the vines off at the top of the ground and allowing them to sprout below the surface of the ground. Remove all sprouts but one, and let this make your vine. This will seem at first like pretty heroic treatment, but in two years' time you will have your vines in much better shape than you can by any other method. In the case of old peach-trees, about all that can be done to help them is to loosen the soil around them and perhaps give them a little fertilizer, so as to keep them along until you can get a new peach orchard started.

Borers.—C. E. C., Abbyville, Kan. The best remedy for borers on peach and apple trees is to look the trees over in the spring of the year and cut out all borers that you can find; and the same treatment should be given the trees again in August. If you want to apply some preventive to the tree, a good thing is soft soap and lime made into a sort of wash. This is rather repugnant to the mature insects, and to some extent prevents their laying their eggs where it is found; but the only way to get rid of the borers in the trees is to dig them out. Such a wash as is recommended should be applied in the early part of June, and from then on until September.

Lawn Shade-tree.—W. E. S., Providence, R. I. The best tree I can think of for a lawn-tree, and one that will stand having a hammock attached to it when it is young, is probably the white willow. This will become of a size sufficient to support a hammock in a few years. While this tree is not generally considered a very desirable lawn-tree, yet it has many qualities which recommend it, and if not in too conspicuous a place is very desirable. Of course, you are familiar with the fact that our best trees for lawn and street planting are the white elm and the sugar-maple. These would make good trees for your purpose, but could not be safely used for supporting a hammock for many years. It seems to me a much better way for you to do would be to put up a couple of posts and plant out trees near by for shade.

Evergreen Trees.—J. E. W., Big Prairie, Mich. If you wish to get evergreen trees from the woods I would suggest that you dig them as soon as the frost comes out in the spring, taking great pains not to allow the roots to have even the appearance of being dry. Select small trees; those not over eighteen inches high will generally do best. I think that evergreen trees generally look best when planted in groups close together, and as you want a quick effect this gives it to you much better than the ordinary way of planting them over a large area. I make a practice of planting groups perhaps thirty by twenty feet on large lawns, setting the trees not over eight feet apart. They will grow in this condition for perhaps fifteen years before they crowd much, and then it is a small matter to take out a few specimens, to give the others sufficient room.

Crown-grafting.—M. E. W., Bellville, Ohio. I do not know just what you mean by crown-budding, but think you probably mean what I know as crown-grafting. This is most often used on rather large stocks, say those at least an inch in diameter, but may be used on those smaller. In this kind of grafting the work is not performed until after the bark will peel nicely in the spring, say April 15th to May 1st. The tree is then cut off and the scions are cut about half way through on one side and shaved down to a point so there is a sort of a shoulder on the scion. In this form they are pushed in between the bark and the wood, with the pith toward the center of the stock. If there is any difficulty about pushing them in it is customary to cut the bark near the scion at the time they are pushed down. When fairly inserted they should extend about one and one half inches in between the bark and wood, and the shoulder of the scion should rest upon the top of the stock. Such a form of grafting is often successful where other forms fail; as, for instance, it is desirable for grafting willows. In such case I have had far better results from crown-grafting than from ordinary cleft or whip grafting.

Pruning Small Fruits.—F. M. H., St. John, Utah. It is difficult to give any thorough directions within the limits of these columns as to the whole subject of pruning small fruits. In a general way, however, currants usually require very little pruning, and all that should be removed is the diseased or weak wood, leaving the thrifty shoots to produce fruit. Where there is not much trouble from the currant-borer the shoots of the currant should remain until they are about four years old; but if they show weakness before that time they should be taken out. In the case of the gooseberry the same rules would hold as with the currant, except that in the case of American varieties the fruit is greatly improved in size if the wood is severely cut back. This cutting back should be done in the early spring before growth starts. For best results it is a good plan to shorten the new growth on gooseberries from one third to one half its length each year. In the case of red raspberries the rules for pruning will vary somewhat according to the varieties. Of the strong-growing sorts not over four canes should be left in each hill, and these should have the weak growth at the end of the cane cut off in the spring. In the case of blackcaps they should be thinned to about four canes to the hill, and the following spring about three fourths of the side shoots should be cut off and also about one third of the main cane. I doubt very much if anything is gained in the case of raspberries by summer pruning, although for many years I have practised this in the belief that it was beneficial.

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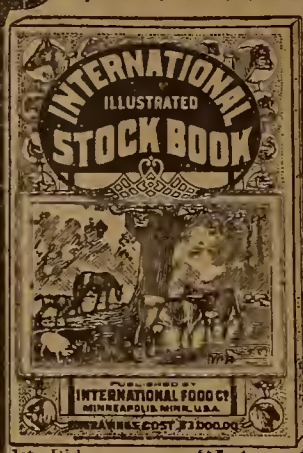

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YOUNG TURKEYS

As the weather is becoming warm turkey-hens should be laying or getting in condition for so doing. The young ones when hatched out should be forced forward as much as possible to secure the greatest growth, as it is the early days which benefit them the most, for when a good start is made it is not a difficult matter to keep it up. For the first food give some finely cut onion-tops mixed with hard-boiled eggs, and crushed wheat or bread-crumbs. Finely chopped onion-tops are always relished. The young turkeys are keen on picking out from their diet those articles which they most prefer. Stale bread and curds are accepted. Dampness, whether from rain, dew or from any other cause, is fatal to very young turkeys. In a few weeks the diet may consist mostly of grain and a variety. In addition it is a good plan to tie up a vegetable of some sort just so high that the birds must stand well up to pick at it. This is good food, and the exercise is beneficial. Where grain is grown the birds as they come on should be given the run of the stubble-fields, where they will pick up much food for themselves. A point in feeding young turkeys is to give them food four or five times a day—all they will eat—but clean away that which is uneaten, as it may ferment and injure them. A little millet-seed may be scattered for them to seek, and they may be turned out with the hen from nine o'clock in the morning until five in the afternoon, but must not be allowed among other lots of turkeys or chicks, in order to avoid lice. The large lice on the heads come from the hen turkey and quickly destroy the young ones. Dust them with insect-powder, and rub it in on their heads. Hatch the first eggs under (chicken) hens.

FREE RANGE

In small runs or inclosures fowls do not like to scratch. They will stand, moping, dull and inactive, knowing full well that it is of no use to expend force in scratching in the hard soil, fetid with their own excrement, which contaminates every morsel of food given them, and in which a worm or bug has not been seen for months. They are thus deprived of the most natural food which they like, and it would do them much good if they had a chance to roam at will and search for these precious morsels at their leisure. Out-of-door recreation serves a double purpose—the fowls find much food daily, and they get enough pure air and exercise to make them healthy.

BONE AND BONE-CUTTERS

Bone for poultry is usually purchased from local butchers, the price depending upon the locality; sometimes it is given away. Bones may be kept a long time by subjecting them to sulphur fumes for half an hour in a suitable box having a lid. An old trunk serves well. Put the bones in, light a sulphur candle or a tablespoonful of sulphur, and close the lid. A bone-cutter is almost indispensable to success, as bones greatly assist in making hens lay. It is not known which is the best cutter, as each has claims in its favor; but that a bone-cutter will soon repay its cost is conceded by all poultrymen who are enterprising.

LAMENESS

When the chickens or turkeys become lame the most frequent cause is alighting from high roosts. They may be very fat, and may not have any difficulty for a while, but the constant striking of the ground every morning will sooner or later be manifested by lameness. The remedy is to force them to roost lower. Fat ducks will become lame from inability to support the body with ease, while rheumatism is also to be taken into consideration as a possible result.

HENS NOT LAYING

If the hens do not lay, now that spring has come, it is safe to claim that the cause is that they are very fat and overfed. The large majority of persons feed twice as much as is necessary. With the advent of warmer weather reduce the grain and give lean meat, cut bone and grass or vegetables. If the fowls have a range give no food at all.

LICE IN THE NESTS

It is under the sitting hen that lice find favorable conditions, and the following remedy will be found efficient: After the hen has been sitting four or five days approach the nest after the hour of feeding. She will show her disapproval by a great ruffling of feathers. Now quickly dust a generous portion of insect-powder thoroughly into her upraised feathers. This will be most effectual with the hen, and the powder dropping down among the eggs and hay of the nest will destroy all parasitical life. This may be repeated four or five days before hatching, but not later. It is all-important to gather the droppings from under the roost every morning if possible, but it should never be neglected more than two days if one desires the fowls free from vermin and scabby legs. Few people realize that the largest of the poultry-house family swarm on a hen's body at night, drawing her very life's blood, and in the early morning crawl into the droppings and remain during the day waiting for the next night's feast. Thus will be seen the importance of removing the droppings daily, especially as warm weather approaches, if you would rid the poultry-house of lice. The use of the advertised "lice-killers" will also be found as cheap and efficacious remedies as any.

SUDDEN DEATHS

Quite a number of the readers of the FARM AND FIRESIDE complain that their hens die suddenly, and remedies are asked for. Unfortunately those who write for information seldom give details. They simply mention that the fowls died and that grain was fed, nothing being stated as to how often the fowls were fed, how much, or the conditions under which they are kept. Exclusive grain-feeding causes the hens to become very fat, and they sometimes fall off the roost, dying suddenly from apoplexy. When hens are very fat they seldom lay very many eggs. Soft-shell eggs, very large or double-yolk eggs, very small eggs, eggs of an abnormal shape, and sometimes premature molting, indicate a very fat condition.

CORRESPONDENCE

ENLARGED LIVER.—"M. E. R.," Lamonta, Oregon, page 9 of March 15th FARM AND FIRESIDE, has been feeding poultry food. I think that is the cause of the enlarged liver. I have lost a number in that way this winter in flocks where I had used the food, but none in another flock where I did not use it. To "E. A." I would say that I read lately that hens having access to wood ashes would not eat their eggs, but I have not yet tried it. E. S. B.

A YEAR'S PROFIT.—Last year I commenced a small poultry business. I started with twenty-six hens, three roosters and twelve turkeys. I sold during the year forty-two chicks, for which I received $6.60; forty and one half dozen eggs, $16.36; thirty-two turkeys, $16.30; used in the family seventy-nine dozen eggs, $9.48, and also twenty-eight chickens, $5.60, making a total of $54.34. I have now forty hens and four roosters. I thought I would let you know about my poultry ventures, so that some one else can make a break in that direction if they see fit. It is not hard work. The only work of consequence is in keeping their quarters clean and caring for young ones in bad weather. I take great pleasure in my poultry, and hope to do better this year.

Estelle, Texas. M. J. L.

INQUIRIES ANSWERED

Small Eggs.—E. R., Yellow Creek, Pa., writes: "What causes fowls to lay small eggs without yolks?"

REPLY:—It is due to several causes, such as fat condition, and is peculiar to pullets that are beginning to lay.

Hens Becoming Lame.—E. S. B. writes: "What is the cause of hens suddenly becoming unable to walk or even stand? They appear to be in a healthy laying condition, and have no other symptoms of disease that I can find."

REPLY:—They are probably fat and the roost too high.

Hens Not Laying.—F. T. R., Piper City, Ill., writes: "I have one hundred hens, and get only from six to twelve eggs a day. They have sand, crushed oyster-shells and ashes. What can I do to make them lay?"

REPLY:—Mode of feeding and management should have been stated. Feed less grain at this season and give lean meat and cut bone. They will probably lay more eggs when spring fairly opens. Do not overfeed on grain.

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VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Possibly a Quittor.—W. P. M., Auburn, Texas. What you write about may develop into a quittor. Your description is not very plain. Have your horse examined by a competent veterinarian.

Abortion.—C. A. O., Glencoe, Ill. The abortions among your sows seem to be of an infectious character. If so, follow the advice to S. M. A., Saunders, Kansas, in FARM AND FIRESIDE of April 15th.

Cannot be Answered.—M. M., Roanoke, Mo. Your questions cannot be answered unless you give particulars. To answer them as they are would require to write a good-sized book on sheep-raising.

Warts on a Cow's Teats.—J. B., West Albany, N. Y. You must not interfere with the warts while the cow is in milk, and before she is dry again this wart question will have been answered several times.

Does Not Come in Heat.—A. S., Brooklyn, Mich. Unless your cow is too fat, send her to pasture as soon as there is sufficient new grass to support her, and if possible to a pasture in which she has the company of a male.

Grubs in the Head.—G. W. P., Ulm, Ark. Your sheep suffer from "grubs" (the larvae of Oestrus ovis) in the head. Please consult answer to O. D. H., Kendalia, W. Va., in the Eastern edition of FARM AND FIRESIDE of February 1st.

Paraplegia.—J. O. F., Nokomis, Ill. What you describe is a case of paraplegia; and especially as it is of long standing, and your mule, now two years old, contracted the disease when yet sucking, it will be safe to look upon it as absolutely incurable.

Failed to Get with Calf.—S. S., Essex, Ill. You say your cow had a calf a year ago last October, but none since. It may be that she is too fat. If she is not, you may succeed if you turn her out to pasture, and if possible to one in which she has the company of a male.

A Morbid Growth.—A. J. J., Cedarville, Cal. The morbid growth between the eyeball and the eyelid of your cow probably proceeds from the injured or degenerated lacrymal caruncle. To remove it requires a delicate surgical operation and a competent surgeon to perform it.

Nymphomania.—H. M. L., Perryopolis, Pa. What you describe appears to be a case of nymphomania, caused by a morbid irritation of the ovaries. Such cows as a rule do not conceive, and if they should they usually abort. If the ovaries are removed the cow may fatten and make good beef.

Foundered Fifteen Years Ago.—H. G., Graeme, Oreg. You cannot possibly expect to have the degenerated hoofs of a mare foundered fifteen years ago restored to a normal condition. All that can be done is to lessen the pain by means of good bar-shoes. See answer to M. G., Glen Ullin, N. D., in FARM AND FIRESIDE of April 1st.

Seventeen Years Old.—R. G. S., Plum City, Wis. You cannot expect to fatten an old cow seventeen years old, an age seldom reached by cattle. She probably has lost, if not all, at least most of her grinders. You may possibly keep her alive a while longer if you keep her on soft food or food that does not require mastication, but you will never be able to fatten her.

Premature Milk Production.—W. J. H., Walnut Hill, Ill. Such a premature milk production as you describe is rare, but it has occurred before. May it be that your mare is much nearer foaling-time than you are aware of? If so, there would be nothing abnormal. The edematous swelling you speak of will more or less disappear if you allow the mare some voluntary exercise.

Periodical Ophthalmia.—J. W., Catlin, Wash. What you describe appears to be a case of periodical ophthalmia, or so-called moon-blindness. It is incurable and will terminate in blindness. The "yellowish white scum" of which you speak is inside of the anterior chamber of the eye and not on the surface of the cornea, as you will readily observe if you look sideways through the eye.

Has Probably Given Birth to a Calf.—J. E. A., Buena Vista, Wis. According to your description it looks as if your cow has given birth, perhaps prematurely, to a dead calf. That she has no appetite may be partially, at least, due to all the medicines you have given, and is fully explained if she also has devoured the afterbirth. It is barely possible, but not probable, that she is yet carrying a dead fetus.

So-called Ringworm.—G. D., Suisun City, Cal. Paint the patches once a day with tincture of iodine, but see to it that you get none of the tincture into the eyes of the calves. The application is best made with a camel's-hair pencil. At the same time thoroughly clean and disinfect the premises. This is necessary, because so-called ringworm is a contagious disease, and if it has once taken a good foothold in a herd—or, rather, a stable—it is not easy to eradicate it.

Premature Milk Production.—T. W. D., Lafayette Hill, Pa. Cases like the one you describe, in which a heifer produces milk before she has a calf, are certainly uncommon, but occasionally do occur. I do not see the necessity of any interference, at least not so long as the animal appears to be in good health. May it be possible that you are mistaken and that your cow has given birth to a calf, perhaps prematurely, without your knowledge?

Castrating Calves.—C. A. C., McPherson, Ill. Please do not ask me to pass judgment on the merits or demerits of articles that appear in other papers. Besides this, I have not read that article you mention. Have your calves castrated by somebody who knows how to do it and does it in a clean and expeditious way and you will have no more trouble. More I cannot say, because you do not inform me in what your trouble consists.

Probably a Fracture.—T. T., Independence, Kan. Taking into consideration all the facts you state one cannot help from coming to the conclusion that your calf cannot get up on account of a fracture of probably either the shoulder-blade or the humerus. As it is, I do not see that you can do anything, especially as it happened about the first of March. When this reaches you the broken bone may have become in some way united again and the calf may live, but will remain a cripple.

An Actinomycom.—E. W., Cuba, Kan. In the answer you refer to, on page 10 of January 15, 1901, FARM AND FIRESIDE, I said precisely what I meant to say in plain language. If the mixture you had prepared is too thin, the druggist who prepared it either used too much water or not enough gum acacia. Besides this, the actinomycom of your animal appears to be in the bone, and if it is the operation described is not applicable, as I explicitly stated in the cited answer. Please read it again and you will probably understand what I said and know what I did not say.

Garget—Horses and Cattle in Same Barn.—J. W., March, Wis. The ailment of your cow appears to be garget, brought on by insufficient or negligent milking. If not too late follow the advice so often given in these columns.—Whether horses and cattle can be kept in the same barn without damage to their health depends upon the barn and the condition in which it is kept. It can do no harm if the barn is large enough to afford sufficient accommodation, is well arranged, well ventilated, light enough and kept clean.

Multiple Ulcers on Leg of a Cow.—N. T. B., Harveyville, Pa. Your description leaves me in doubt whether the ulcers you speak of are of a pyemic or of a tuberculous nature. If the former, and there are no abscesses in interior organs, applications of caustics (for instance, of finely pulverized sulphate of copper) would be indicated. Still the getting thin, the weakness in the back, the difficulty of getting up in the morning, in spite of good care and the fact that she contracted the disease—or, rather, showed the first symptoms—immediately after calving, are symptoms I do not like any too well.

Requires Examination.—J. W. M., Lofty, Ala. Your mare should be examined by a veterinarian. The simple statement that she does not do well and does not eat enough will not enable anybody to make a diagnosis. There are too many possibilities, and to make a wild guess is apt to do much more harm than good. If you have no veterinarian available I advise you to examine the molars, or grinders, in her mouth, and if you don't find any one diseased or defective to send mare and colt to a good pasture as soon as possible and to exempt the mare, for the time being at least, from all kinds of work.

Tetanic Spasms.—J. G. K., Bodines, Va. What you describe appears to be an attack of tetanus of but short duration, manifesting itself as a contraction of the neck to one side. Such attacks are in cows not seldom associated with inflammation of the uterus, from which your cow seems to suffer. Still as the attack was of such a short duration all danger is probably past. If the bloody discharge from the uterus of your cow has not ceased when this reaches you I would advise you to irrigate her uterus a few times with a one-per-cent solution of creolin in milk-warm water. How to do this has been repeatedly described in these columns.

Scours When Driven.—D. F. S., Nebraska, Pa. Feed your horse two hours before you hitch him up for work, drive slowly for the first mile, and also the last mile before you get home, and never feed a full meal until the horse has cooled off. Besides this, do not feed too much voluminous food nor any more grain than the horse is able to digest. If you feed too much the fetid smell of the dung will soon tell you. Remember that food eaten and not digested can only do damage, but no good. If you follow these few rules the trouble will—not at once, but gradually—disappear.

A Swelled Leg.—A. H. B., Echo, Utah. So long as the swelling of the leg of your horse is edematous and disappears or essentially decreases when the horse is exercised it may be permanently removed if the swelled leg receives every evening a good rubbing with the palm of the hand, is kept bandaged over night with a well-applied bandage of woolen flannel, receives another good rubbing in the morning when the bandage is removed, and is exercised during the day. This treatment promises success if a noticeable decrease can be observed in a few days, and then it must be continued until no more decrease can be effected.

Heaves.—E. C. W. McD., Aptos, Cal. What you describe is a case of so-called heaves. It cannot be cured, but you can considerably ease your mare if you see to it that she has always fresh air to breathe, does not eat any dry hay (especially if in the least dusty or moldy), receives green food in the summer, and in the winter instead of hay a little good and clean oat-straw, some root crops (carrots, for instance) and as much grain as she may need to keep in good condition. Last, but not least, you must see to it that she does not get constipated; therefore, whenever her dung should be getting a little too solid her bowels should at once be loosened by giving her a good bran-mash.

Urachus Not Closed.—F. L. L., Filley, Neb. The trouble with your colt is that the urachus in the umbilical cord, through which the contents of the bladder are discharged during fetal life, did not close when the colt was born. It could have been easily remedied as soon as it was found out, or, to be more precise, when the colt was only a few days old, by pushing a stick of lunar caustic about three fourths of an inch into the urachus—but, of course, not into the bladder—and by keeping it there a minute or two. I cannot tell you what to do now or when this reaches you, because I have no idea in what condition the colt may be, but rather suspect that the same will be past all trouble and ailments.

Retention of Afterbirth.—R. G. S., Plum City, Wis. If a cow does not clean in due time the afterbirth should never be removed by hand except by a veterinarian who is perfectly familiar with the anatomy and physiology of the parts in question and knows how to proceed. Your cow undoubtedly died of inflammation of the uterus, and maybe lesions of the same, caused by the rude attempts to pull out the afterbirth by brute force, and by tearing off the cotyledons—the "lumps" you found embedded in the afterbirth—from the interior walls of the uterus. Your cow very likely would have lived if she had been left severely alone and if you had not permitted ignorant parties to attempt to do by brute force what they do not and cannot understand.

A Stiff Mule—A Swelled Jaw.—J. F. K., San Antonio, Fla. Your first question about your mule I cannot answer unless you give further particulars, because stiffness may have various causes, and what you call stiffness may be more lameness than stiffness. The most frequent causes of stiffness consist (1) in a degeneration of the muscles, disabling them from performing their functions in a proper manner; (2) in ankylosis of indispensable joints, and (3) in a morbid contraction of tendons and ligaments. Stiffness, or rather a morbid contraction of the muscles, also occurs in tetanus and lock-jaw.—In regard to the swelled jaw of your colt, or the "hard substance grown on the lower jaw-bone," there are also several possibilities. It may simply be an exostosis and the mediate result of external violence; it may be the product of an inflammation of the bone proceeding from the injured root of a tooth, and it may be of a specific character and be an antinomycom situated in the bone. Either have the animal examined and treated by a veterinarian or give fuller particulars and a complete description of the case.

Torticollis.—B. L. D., Mina, Kan. What you describe is a case of torticollis. It can be produced by different causes: (1) By paralysis of the muscles of the neck on the convex side of the latter; (2) by inflammatory affections or even partial tearing of the muscles on one side of the neck, in consequence of severe straining or a severe fall; (3) by a subluxation of the cervical vertebrae or a fracture of the oblique processes of the same. Before anything can be done by way of treatment a correct diagnosis, based upon a careful examination, must first be made. The bleeding was entirely uncalled for. If a competent veterinarian is not available it may be best to do nothing but to take care of the animal. If a subluxation is existing, efforts to effect a reposition, especially if made in time, are often successful, but they have to be made under the personal direction of a competent veterinarian. On the whole the prognosis is not unfavorable, because most of the animals thus affected will get well in the course of time even without any treatment. Of course, everything hinges on the cause whether the same can, and will, be removed by physiological processes or not.

Died of Colic.—J. T., Sunnydell, Idaho. Your horse died of colic, and the immediate cause of death consisted probably in the hemorrhage into the abdominal cavity and the peritonitis that followed. You say you found the stomach ruptured, but it cannot be learned from your description whether that organ became ruptured before death or by the expansion of the rapidly developing gases after death. Most likely the latter, because you do not say that you observed vomiting while the horse was yet alive (a common symptom of a ruptured stomach in horses), and you do say that the stomach looked healthy at the post-mortem examination, which would hardly have been possible if the rupture had taken place while the horse was yet alive. Therefore, it is highly probable that the bleeding came from intestinal arteries or even directly from the anterior mesenteric artery, the frequent seat of the immature forms of a worm known as Sclerostomum equinum, which constitutes the most frequent cause of colic, migrates when approaching maturity through the walls of the arteries, and by penetrating them not seldom causes a fatal hemorrhage. Therefore, it is highly probable that the disease of your horse was fatal from the beginning. The bots you found had nothing to do with the death of the animal.

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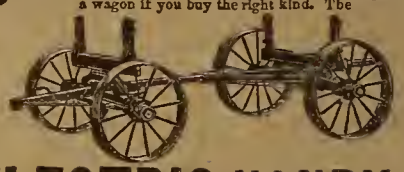

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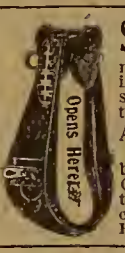

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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

CURRENT COMMENT

The Topic for May "Why do we favor the introduction of nature-studies in public schools, and what can we do to secure it?"

We might as well ask why we favor the study of physiology, anatomy and hygiene for our physicians, or journalism for our journalists, or law for our lawyers, as to ask why we favor the introduction of nature-studies in our public schools. The foundation of all knowledge is found in nature. It is to her that we must revert in the last essence for answers to all questions we would ask. I care not whether it is of physics, art, philosophy or science, the one query is, "What does nature teach?" The world has never produced a leader in any walk of life who was not a constant student of nature.

If we would truly educate the child we must answer the questions his childish mind asks. We must direct his inquiries into what he is most interested in. Your normal, healthy boy or girl cares more for fields and brooks, trees and flowers, birds and animals, than all the books ever written. See them chase that butterfly, not to hurt, but to find what makes it go. And men in all ages would sacrifice many years of life to discover the secret of the birds' graceful flight.

Children will lie for hours watching a hill of busy ants or a school of minnows in a near-by brook, and we, in our ignorance, call them idlers, and order them to leave their study of the fascinating and wonderful creations of an all-wise God and sit down and pore over the books they detest. No wonder they hate them. No wonder they must be driven to them. They are nearer heaven than we. They hear and see and know things you and I have long ago forgotten. Time enough to give books to the healthy, normal, well-born child when his inquiries lead him to them. Keep books about them. Let them rollic in a book-filled home. Rest assured inquiries they cannot answer will arise, and they will turn to books, lovingly, longingly, because they contain answers to the questions they would fain ask. In our efforts to educate we have reversed the order of nature. When children are interested in all things about them; when they would inquire of every breeze its message, every bird the secret of its flight, every grass-blade the secret of its life, and every insect its reason for living, we force them to add columns of useless figures, and spell words they will never use after leaving school, and learn a mess of grammatical rules that in ten years every educator of judgment will denounce as false, and memorize the length of rivers and the population of cities, and a thousand and one other useless things. And then after years of cramming and jamming we weakly complain that our boys and girls are incompetent. They cannot cope with the world. We point to the strong oak and tell them to learn a lesson of endurance, fortitude and bravery from it. We show them the rock-ribbed hills, and say, "Learn a lesson of patience and attention to details from it. It grew by small accretions, slowly but steadily. Thus must you grow. Success is not attained by leaps and bounds." We point to the soaring eagle, and say, "Emulate its example, my lad. Let your aims and your aspirations be as high and noble and holy."

And the young man and maiden reply, "We see naught of the lessons you would indicate. Time was that we might. Let us return to the life we know. Yes, it is a fine thing to be self-reliant and courageous and tender and true, but we must learn those lessons from our associates. Of course, we cannot rise above them. We are all on a dead level. We know nature teaches valuable lessons, but we cannot read them now. Our hearts are not in them. Do not urge economic reasons. We were interested once. We wanted to study, and you drove us from it. We were confident that nature propounded no questions she would not answer, but you refused to let us wait for the answer. We beg your pardon, but let us suggest that you study nature yourself. Let our brothers and sisters who are younger than we, who are asking the same questions we asked, who are seeing the same things we saw, let them inquire and be answered. That is the method of nature. We have missed much of life and will miss more. Do not cripple our brothers and sisters in the race. Give them the opportunity God intended they should have, to learn easily and naturally. Deal with them as their separate natures allow, but do not drag them from the one thing that will make them noble and heroic. You have erred with us. Do not continue your erring." Thus speak the young men and maidens who long for, yet know not how to get close to nature's heart.

Ignorance of bird and insect life costs the farmers millions of dollars annually. Ignorance of the commonest plant and animal diseases costs many millions more. Ignorance of the common things about us, of the forces with which we daily have to deal, has cost us far more than adverse legislation and discriminating tariffs. With legislation we have to deal. We need to protect our rights, but there are millions of dollars annually lost over which man-made laws have no control whatever, and it is only by closely observing nature in all her phases that we can find relief. It is not enough that ten or a dozen men at our experiment stations observe and record, but every son of Adam must, in his own way, pursue the same investigations. We are paying men to observe what we ourselves ought to find out. We demand of them that they tell us over and over the lessons they have learned. We do not say to them, "Go on! Study further! You have a magnificent foundation laid. We will avail ourselves of what you have observed and recorded. We will make those things true for ourselves, only do you go on in the fields we cannot travel."

How would you secure training in nature-study? Much can be done in the home, but the real study must come in the school. Secure teachers who are interested in nature, who are good observers. "But your teachers know nothing of these things," you say. Why do you employ them? There are enough who do know. Of course, if you desire to employ a girl or boy of sixteen or eighteen years who wants to earn sufficient money to buy a watch or a wheel, and think teaching the quickest and easiest way to get the coveted treasure, why, you cannot expect much of a teacher. But you must remember you are getting what you bargained for—a time-server, not a teacher; you are helping an individual to some doubtful pleasure while neglecting the culture of the little ones. Our ambitious young men and women, and we have many of them, will be glad to increase their knowledge and use it if you ask them to do so. But you cannot expect a sixteen or eighteen year old to have very mature and trustworthy conceptions of life. They have devoted their attention to text-books, not to nature or literature in general. How often do you hear young people preparing for teaching say, "I would like to read that book of Burrough's, but I haven't time. My text-books take all my time." What valuable lessons can these young men and women, whose knowledge extends not beyond the bounds of a school-room, teach your little ones? They are excellent, well-meaning young people, I grant you, but that does not mean that they are necessarily teachers. Therefore, I would urge you to make every effort to get more mature and observant minds for teachers. This may work inconvenience for the teachers for a few years, but if they are of the right kind of stuff they will soon rise to the new demands and be better, truer men and women for the extra effort put forth. Moreover, their work will command a higher wage in the market because it will be worth more; and the public can well afford to pay them higher because they render more valuable services. I believe the patrons are more to blame than the teachers for the condition of our public schools. They do not give sufficient encouragement to the promising, ambitious teachers, while the poor teachers receive entirely too much. They crowd to the wall the class who cannot afford to work for the wages that are offered.

Growth of the Grange Dr. Trimble, the loved national secretary of the grange, sends the following statement of the growth of the grange from January 1, 1901, to March 31, 1901, both inclusive: New granges organized: California, 2; Colorado, 3; Connecticut, 1; Illinois, 4; Indiana, 3; Maine, 5; Massachusetts, 1; Michigan, 22; Minnesota, 2; Missouri, 1; New Jersey, 1; New York, 9; Ohio, 7; Oregon, 1; Pennsylvania, 4; South Carolina, 1; Tennessee, 1; Vermont, 8; Washington, 2. Total, 78. Granges reorganized, 31. Grand total, 109.

This is a good showing, but we must do better than that. From many states inquiries are coming as to the means of organizing granges. All are immediately put in touch with the proper authorities. We want to hear from every one who is anxious to benefit himself, his neighborhood and the interests of the farming class to at once set about to organize a grange. If we can help you, write us. If you are in doubt, ask questions. Those we cannot answer we will forward to those who can. Write to-day.

The Good-Roads Campaign No one in the light of past experience and present conditions dare deny, save for purpose of argument, the necessity of good roads. Who shall build them, how and of what material are the paramount issues. Farmers have not been slow to see the advantages that would accrue to them by the use of hard roads. Likewise they saw the advantages to other industries. Wisely they refused to add to their burdens by bearing the sole expense of what others should share. There are few industries that would not share equally with farming the increased business brought by better modes of transportation. "These businesses," said the farmer, "should bear their just share of the burden." Now that they show a disposition to so do, the farmer will not be remiss in extending all aid possible. In localities where there is material for the building of durable highways the problem is comparatively simple. It is simply a matter of all parties working together for the good in which all will share. But where the roads are almost impassable during the winter months, where the material for road-building must be transported long distances, the problem is of serious difficulty. It would seem that as the railroads would derive much good from better country roads that they ought to make concessions in transportation of material. But railroads have not shown a "pernicious activity" in forwarding public improvements of this kind.

Meanwhile it is not necessary to sit down and wait for good roads to come to us. We spend annually several millions of dollars in the repair of roads with no visible improvement. It would seem that this amount wisely used would produce some apparent result. In too many cases the supervisor is elected because he is a poor man or as a petty reward for some political service. Such a one rarely has the interests of the community at heart or is possessed of the judgment necessary to fill so important a position. Think of putting a man in charge of a work on which depends so much of the financial and social life of the farmer. If the money that is annually wasted on our roads was judiciously spent we would soon be in possession of enviable highways. The isolation of which some farmers so bitterly complain would be a thing of the past.

The Labor Problem The labor problem, like Banquo's ghost, will not down. It comes up with nearly every mail, ubiquitous if not serene. There is a comparative unanimity in the letters. "Our best young men have left us," our friends write. "We are compelled to employ those who from lack of ambition and general inefficiency are unable to get on in other walks of life." And for this labor farmers pay from fourteen to twenty dollars a month, including board and washing. There is food for thought in this. If the farmer has the sagacity to feed, lodge and pay such a wage for unskilled and indifferent labor, and get a profit from it, could he not afford to pay a correspondingly larger wage for trained laborers? A laborer by stupidity, inattention, carelessness, untrustworthiness or the lack of that peculiar faculty called the "knack of doing things" can easily lose his employer many dollars in the course of a season. If the farmer's business can bear this and yet make a fair profit out of the labor the natural inference is that the superior labor rightly and timely done could be paid a higher wage. On the other hand, would not our young men find as remunerative employment on the farm as in the city? Would they not accumulate more, live better and have more of the real and lasting comforts of life? Are not our young men making a mistake by leaving the advantages the farm offers? Will not better roads, rural mail delivery, telephones and trolley-cars take from farm-life the one great charge against it, that of social isolation? So far as intelligence is concerned, will not the young man and woman find as much in our rural districts of the better class as they will find in the towns and villages? Certain it is that they will have a larger independence and freedom and maintain a large share of self-respect. In the country we have not yet lost our admiration and respect for labor honestly performed.

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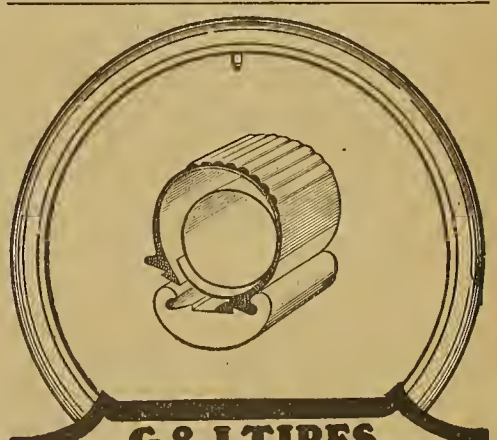

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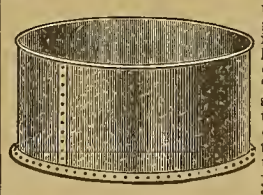

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The Useful Herbs

BY VIRGINIA REED

Now that the time has arrived for us to plant the articles which are to be grown in our gardens during the coming season, it is hoped each one has considered the advantages to be gained by growing some of the herbs with which our ancestors were most familiar, and which still occupy a portion of the garden on every old estate in France, England and Germany.

When the French have once realized that the people of this country are unacquainted with herbs they will not be so surprised to find that we are "a nation with but one sauce." Indeed, the French make a daily use of one or more of the herbs, and if we were to devote a little time to the study of the uses of the different herbs, as well as to the flavor imparted by the herbs themselves in various combinations, we might easily add to the attractiveness of the viands and the pleasures of the palate and ofttimes improve the health of the family.

Angelica leaf-stalks are preserved in England and France and used as a garnish, while they are peeled and eaten raw as a delicacy or boiled with meat or fish in Sweden, Norway and Lapland. The seeds are used to flavor liquors. The root, as well as the leaves and seeds, is sometimes employed for medicinal purposes, and in Lapland are chewed like tobacco.

Anise is a Persian plant, being one of the oldest medicinal spices. It is a pleasant aromatic carminative. A weak infusion of the herb slightly sweetened is used in flatulent colic. The seeds are used as a condiment and in the manufacture of liquors and cordials and in confectionery. The plant is also used as a garnish and for flavoring.

Balm is used as a tea for the sick and as a cooling drink in fever. It is used for culinary purposes and to flavor wine. A small sprig bruised by the thumb and finger just before being added to "a cupful" will impart to it a pleasant flavor. Balm-pillows are so soothing to the nervous as to be thought by some to be even better than pillows containing hops. Bees are very fond of balm-blossoms.

Borage-leaves are used in salads and for flavoring. A small sprig placed in any cool drink imparts a peculiarly refreshing and delicious flavor. It is also used in the manufacture of cordials. The flowers are enjoyed by the bees.

Burnet is a hardy perennial. The leaves are used in salads and soups and form a favorite ingredient in cool-tankards. When slightly bruised they smell like cucumbers.

Caraway-seeds are used in confectionery, in cakes, in biscuits, in sauce and sometimes in cheese-making, and in medicine as a carminative and for flavoring spirituous liquors. The young leaves are sometimes used in soups. The roots were formerly eaten like parsnips, and were thought by some to be as good.

Catnip is used as a tea for its soothing effect, especially in colds and colic. Catnip-tea diluted with one third cow's milk is used sometimes by nursing mothers to increase the flow of milk. A warm infusion of catnip when freely used acts as a diaphoretic. The flowers form an excellent pasture for bees.

Camomile-flowers in an infusion form an excellent tonic, and are also good in fumigating-powder.

Chervil-leaves are used in soups, sauces and salads and as a garnish. The roots, however, are said to be poisonous.

Coriander-leaves are used for soups and salads and for garnishing. The seeds are used by the distiller for flavoring liquors, by the confectioner for incrusting with sugar, by the baker in cakes, and by the druggist in medicine, and they are used as a condiment to season food, especially in Peru and India.

Dill is a plant native of Spain, and its seeds are used in pickles and sometimes in preserves and as a condiment. The leaves are used in soups and sauces and in pickles, especially those made with cucumbers.

Hoarhound-leaves are used for seasoning, and are also used in an infusion to subdue an irritating cough, and in candies for colds and coughs.

Hops are used in medicine and brewing. The young shoots are cooked and eaten like asparagus. An infusion of hops has a very soothing effect on the nervous system. A bag-ful of hops dipped into vinegar and placed between the cheek and a rubber bag containing hot water will give relief in the case of an ulcerated tooth.

Parsley was used by the ancient Greeks. It is still used extensively for culinary purposes, both for its flavor and as a garnish. Some eat it to avoid the effects of wine and others dip it into vinegar and eat it to kill the odor of onions. Sheep, hares and rabbits are extremely fond of parsley, and it imparts a fine flavor to their flesh, but it is said to be poisonous to parrots.

Pennyroyal was formerly used to flavor certain dishes, but now the leaves and tops are used only for medicinal purposes. A warm infusion promotes perspiration.

Peppermint is a powerful stimulant, carminative and antispasmodic, and is used in the treatment of spasms, colic and hysteria. It is also used in candies.

Saffron was used to season dishes in the time of Richard II., but now is used to color cheese and butter. It is used in medicine as a diaphoretic. It excites the nerves of the stomach and is in some degree narcotic, so that its uncautious use has sometimes been attended with dangerous consequences.

Sage is one of the oldest cultivated garden herbs, and is used to season sausage, stuffings and sauces and sometimes in cheese. Sage possesses some aromatic and astringent powers, and as a tea is serviceable in debility of the stomach and nervous cases. Sage-tea sweetened with honey is an excellent gargle for sore throat. Sage-tea alone or mixed with senna-leaves is good to remove worms if used freely till it acts as a cathartic, though sometimes summer savory added to sage-tea is found efficacious for worms in children. A warm infusion of sage freely used is a valuable domestic diaphoretic. Sage-tea when cold is used to stop the hair from coming out. Two spoonfuls of sage-juice in a little honey will speedily stop either spitting or vomiting blood, and twenty grains taken in warm water every two hours is said to have the same effect.

Summer and winter savory leaves and young shoots are used to flavor soups, dressings, meats and vegetables.

Spearmint is inferior to peppermint as a carminative, and is chiefly employed in medicine for its diuretic and febrifuge virtues. Spearmint-tea is excellent for nausea, and the leaves or tea is useful in flatulencies. Spearmint-leaves are used in salads and for garnishing and to flavor soups, sauces and juleps.

Sweet basil is used to flavor soups, salads, sauces, stews and various highly seasoned dishes, especially by the French and Chinese.

Sweet-fennel leaves are used as a garnish and sometimes in salads. They are also used to flavor soups and fish sauces and in the manufacture of liquor. The rooty portion and lower leaf-stalks are used for boiling. In medicine it is a carminative.

HELEN'S ROOM

Helen had just come home from a visit to her cousin in a distant city, whose pretty room she had much admired. She had always shared her older sister's room, but now she set her heart on having one which should be her very own. Her mother was willing to gratify her, but the only available room was one in the attic. This room had only one window—a low, broad one, with diamond panes, that looked toward the west. The ceiling was seven feet high in the middle of the room, but at two sides it sloped about two feet to the side walls. Both ceiling and walls had a rough coat of brown plaster.

Helen painted the walls and ceiling blue—very light on the ceiling and a shade or two darker at the sides. The sloping part of the ceiling she covered as follows: She went to the different paper-hangers in the near-by town, and they gave her all the old samples of wall-paper they had. She had been making a collection of posters for a year or two. She cut the paper in lengths to cover the slope, and on each piece pasted a poster and covered the sloping space on both sides of the room with these posters on the wall-paper, using her taste to combine them well. The floor she covered with a cheap white matting, and also painted the woodwork white.

There was an old bedstead, bureau and wash-stand in the room. The two latter she painted white with enamel-paint after first scrubbing them with lye. In the place of the bedstead she bought a low, broad cot with woven springs and a mattress, which she used for a bed, and during the day transformed it into a luxuriant couch with the aid of an old-fashioned blue and white coverlet woven by her grandmother in her girlhood and a goodly supply of cushions. From the skirt of an old dotted swiss dress she made ruffled curtains for the window.

Her brother made her a three-fold frame for a screen, which she painted enamel-white and covered with blue denim. Her little oak writing-desk she stood near the window, and for seats she had one chair painted white, one wicker rocking-chair and a camp-stool with blue denim seat. Her brother has promised to make her some low book-shelves, which are to be painted white, and a window-box, to be put on brackets outside the window, so she can have flowers and vines there.

Helen is well pleased with her "nest under the eaves," as she calls it, and her friends all admire it. She is sewing rags now to be woven into a rug. They are all cotton, white and different shades of blue, which she colored with dyes, and will be woven in the "hit and miss" style with blue warp. MAIDA McL.

LEAF DESIGN WITH FEATHER-EDGE BRAID

This leaf design furnishes the foundation for a great variety of decorations. If the crochet-work is done with fine thread and fine braid it is a very dainty ornament for the ends of a muslin tie; a tint of color may be given by lining with pale blue, pink or any preferred color of silk. If made with black silk feather-edge braid and crocheted with black silk thread it can be used effectively on bodice, sleeve, jacket or skirt of silk or wool gowns.

A pretty corner decoration is made by conforming the size and arrangement of the leaves to the location. By using coarse thread or coarse crochet-cotton and a large hook and working the leaves of uniform size a handsome tidy-wheel results. Join a sufficient number of these wheels, using the center stitch to fill spaces, to use over a chair-back cushioned in solid color. Or

make a chain-stitch around the wheels after they are joined and spaces filled, then a line from each joining to this chain, and on this chain crochet a pretty edge; then line with silk or some bright wool goods and stiffen with heavy cloth.

Cushion-covers, doilies, table and toilet mats are within the possibilities of this simple, easily made leaf design. The leaf from which the illustration was made was crocheted with No. 50 white thread. Catch the cotton in the third loop from the end of the braid, ch 5, miss 1 loop, 1 s c in next; ch 5, miss 1, 1 s c in each of next eight loops; ch 2, catch in middle of 5 ch, ch 2, miss 1, 1 s c in next loop; ch 2, catch in middle of 5 ch, ch 2, miss 1 and catch in next.

Lay the braid together to form a scallop, leaving one loop at the turn. Pick up stitches through the next four loops along each part of the braid together, as in tricot, and work off in the same way. Make each scallop of the leaf in the same way, except that you add an extra 5 ch to each up to the middle scallop inclusive, and then decrease by one 5 ch until the last scallop is reached and this is like the first. Also at each joining of the scallops two more loops are taken up (four double) until the middle of the leaf where the joining at each side of the center scallop is the same, then decrease to correspond with the other side until the last scallop is reached. This joining is the same as the first.

Ch 10 and join in the space formed by the last 2 ch, to form a ring. Then ch 4 and catch with a slip-stitch in the turn between the last two scallops made. Ch 5 and catch in the center ring; ch 5, catch in the next turn; ch 4 and catch in the center ring; ch 5 and catch in the next turn; ch 4 and catch in the center ring; * ch 6 and catch in the next turn; ch 6 and catch in the center ring. Repeat from * twice; ch 5, catch in next turn; ch 5, catch in center ring; ch 4, catch in next turn; ch 4, catch in center ring. Put first and last leaf together, face to face, and join as before. SARAH E. WILCOX.

SEASONABLE RECEIPTS

DEVILED KIDNEYS.—Parboil lamb's kidneys, skin them, cut them in halves and cook slightly in the following sauce: Put in a saucepan one tablespoonful each of Worcestershire sauce and vinegar, four tablespoonfuls of salad-oil, one teaspoonful of onion-juice and one half teaspoonful of salt. Heat and blend well before adding the kidneys.

SPICED MUTTON.—Mince one dozen stoned olives and two cucumber pickles. Add one half teaspoonful of French (or mixed) mustard and put into a saucepan with six even tablespoonfuls of melted butter. In this lay slices of cold mutton, and heat through, turning often.

CELERY TURKEY-DRESSING.—Toast stale bread quite brown, put in the oven to dry, then roll into crumbs. Chop three stalks of celery very fine and pour boiling water on the crumbs; when well moistened add the celery, one tablespoonful of butter and salt and paprika or cayenne pepper to taste. Onions may be used instead of celery.

CREAMED CHICKEN.—Cut about four and one half pounds of boiled chicken into small pieces as for a salad and put with it one canful of chopped mushrooms. Scald four cupfuls of cream (or part milk), stir one half cupful of flour into two tablespoonfuls of melted butter, cook well, then add to the hot cream; stir until it becomes thick, and season with onion-juice, salt and white pepper or paprika to taste. Pour this over the chicken and mushrooms in a buttered baking-dish, cover with bread-crumbs, and bake two or three minutes in a hot oven.

CAULIFLOWER.—Measure two cupfuls of cauliflower separated into small pieces. Soak in strong salt-water one hour, drain, put in boiling water, cook thirty minutes, not longer or it will be discolored, then drain again.

SAUCE.—Heat together until well cooked two tablespoonfuls of butter, the same of flour, one half teaspoonful of salt and one fourth of a teaspoonful of white pepper or paprika, and add this slowly to one cupful of scalded milk. Stir until smooth, then pour over the cauliflower.

EGG-PLANT.—Boil the inside of a large egg-plant twenty minutes, strain off water and chop fine. Add three large chopped tomatoes and one cupful of bread-crumbs soaked in milk or water. Into a saucepan containing three tablespoonfuls of melted butter put one chopped onion. Fry light brown, then add the egg-plant mixture, also one half teaspoonful each of allspice and salt and one fourth of a teaspoonful of white pepper or paprika. Cook thoroughly, add three well-beaten eggs, and cook two minutes longer.

CANNED TOMATO SALAD.—Boil to a mush one quart canful of tomatoes; strain the juice, and add one tablespoonful of sugar, one half teaspoonful of salt and one fourth of a teaspoonful of paprika or cayenne pepper. Put in a saucepan one half boxful of gelatin with enough water to cover it. When melted add it to the juice, and boil three minutes, stirring well. Pour into tomato-shaped molds or after-dinner coffee-cups to cool. Serve on lettuce with a salad dressing.

PICKLED PEACHES.—To one quart of cider vinegar add four pounds of sugar, one teaspoonful of cloves, one tablespoonful of mace and two of stick-cinnamon broken into small pieces. Bring this to a boil, then set on the back of the stove to keep hot. Rub the fuzz from the peaches, steam until soft, put into cans and cover with the syrup.

SAULT STE. MARIE CAKE.—(First part) Cream one half cupful of butter; add gradually one cupful of brown sugar, one half cupful of sweet milk and the yolks of three eggs well beaten; blend thoroughly. Measure two cupfuls of sifted flour and one teaspoonful of soda; sift these together four times and add gradually to the mixture, then beat until velvety. (Second part.) Scald one cupful of sweet milk, and melt one cupful of grated chocolate with one cupful of brown sugar; stir until shiny, then add to the scalded milk. When smooth cool and add to the first part. Beat well, and bake.

WALNUT WAFERS.—One cupful of brown sugar, yolks of two eggs and one third of a teaspoonful of salt; blend well. To one half cupful of sifted flour add one half teaspoonful of baking-powder. Sift again and stir gradually into the mixture with one and one half cupfuls of broken walnut-meats. Beat well, then add the whites of two eggs whipped dry. Cut and fold into the mixture; do not beat. Bake on an inverted tin or a piece of paper well oiled. When cool cut into squares. Peanut or pecan meats chopped may be substituted for the walnuts. HARRIETT A. LUSK.

"THE NOON REST"

The one now in mind is established in a neighboring city, and is all that its name implies and more. It is but recently that its success has become assured, and although in other cities and large towns there may be other "noon rests," the history of this one is worth knowing.

It was organized for the benefit of business women and girls, and is a resort furnishing them rest, recreation, comfort, and food if desired. It affords an opportunity for them to leave the shops, factories or other places of employment for an hour, finding complete change in the attractive surroundings and refined accommodations. They can, if they wish, take advantage of the excellent luncheon served daily at a merely nominal price, or if they bring food from home, can be provided with a cupful of hot tea or coffee. However, should they prefer to buy nothing, they are cordially encouraged to come as to a resting-place, in which to eat what they have brought, read, chat with acquaintances or to spend the hour as they please.

A little more than a year ago a few philanthropic young ladies met, planned the enterprise and began sewing upon curtains, table-linen and other things necessary to the furnishing of the Noon Rest. After these were completed a guild composed of twenty members was organized, although it now numbers many more.

Through the kind courtesy of the Young Women's Christian Association the Noon Rest Guild is given possession of its parlors from half-past eleven to half-past one on every week-day. Behind these parlors are dining-room and kitchen, also a small room to be used for an emergency in case of accident or illness. The latter contains a couch and a well-furnished medicine-closet.

The guild takes charge of all the affairs of the rest. It is divided into committees, that accomplish all the work involved in the enterprise except that of the laundry and the cooking. Its members take turns in doing the daily serving, while the musicians among the number, with the aid of the Association piano, also furnish in turn music to accompany each day's menu. It may be added that it is organized upon the European plan, that the cooking is beyond criticism, and that the luncheons are perfectly served. A local newspaper prints the menu for one day, as follows:

Vegetable Soup, Bread and Butter	5 Cents
Meat pie	3 Cents
Eggs	3 Cents
Potatoes	2 Cents
Apple pie	3 Cents
Peach pie	3 Cents
Prune Whip with Whipped Cream	3 Cents
Tea	3 Cents
Coffee	3 Cents
Cocoa	3 Cents
Cream	2 Cents

There is entire absence of extravagance in expenditure, but the food is plentiful and of excellent quality.

May the contagion of the Noon Rest spread throughout the country, crop out in other towns and cities and soon hold place among the many permanent institutions having for their object the help and comfort of women. LILLA A. WHITNEY.

THE CHILDREN IN SCHOOL

If any parents among the readers of this paper are of those who send their children to school in order to get them out of the way they may as well pass this article by, as it will have no interest for them.

If any ask me my authority for speech on this subject I will answer, I am not an M.D.; I have never dissected a child nor vivisected an animal, but I have carried in my heart from childhood up a warm love for humanity, especially the little ones. I have taught them in school and reared them at home, and feel that I have had a glimpse of the mysteries of their nature.

We have grown so used to lauding our school system that many have ceased to question it, and none like to acknowledge that it might have a fault. Of late a few brave souls have dared to cry out against the cramming process. That is a step in the right direction which will show its results in due time. My plaint is long hours.

Think a moment of the little six-year-old, accustomed to long, unrestrained hours in the open air, suddenly snatched from his play and imprisoned in a crowded room, more than likely poorly ventilated and over or under heated. He is expected to sit still (probably in a seat where he cannot touch his feet to the floor) and apply his mind for six hours to the construction of one or two or half a dozen words in which he takes no active interest. Do you think he can do it? And if he can, do you think he should?

Could you yourself, in the best ventilated, heated and seated room in the world, with or without a surrounding crowd of human beings, suddenly break off from active physical life and apply your mental powers to advantage for an equal length of time?

When England awoke to the fact that she was rearing a mob of untrained and uneducated people in the factories and mines she strove to correct her mistake by putting the children in schools. There was almost rebellion. The children were wage-earners and could not be spared. A compromise was effected. Half the time they went to school and the other half they worked. Imagine the surprise of the educators when it was found that the children who went to school half a day at a time made faster progress than those who spent the whole day in study.

It seems strange they did not learn the lesson; but just as great surprise was felt when one of our large cities, in default of school-room in one section of the city, sent half the children to school in the forenoon and the other half in the afternoon. The children of that school made better progress than did any other in the city.

You will say these are isolated cases; but if you will make the experiment on your own boys and girls, allowing them half a day with their books and giving them a good drill in practical agriculture or domestic economy during the other half, I think you can prove it for yourself.

Introducing these subjects into the common schools is largely agitated and will doubtless succeed in time. It may prove of benefit to those children whose parents are incapable of training them or too much engrossed in themselves to do it; but I am not agonizing for that. In my mind it is a pity that the children of our country are separated from their parents so many hours a day, so many days a week and so many months of a year.

Our little tots start to school at five or six years of age, and we see little more of them as they rush through school, then college and on out into the world.

VELMA V. BEEBE.

BE QUICK!

If there is anything a child or young person should be taught it is the value of time. The habit of dawdling along from the time they get up in the morning until they go to bed at night should never be allowed to form, in the first place, or if formed should be gotten rid of as quickly as possible. They should be taught to dress in as short a time as possible consistent with neatness. After breakfast their allotted tasks should be performed promptly and carefully, remembering that quick work does not need to deter them from doing their work well. A girl goes into her bedroom to make the bed and "straighten up" the room for the day. Does she go to work in a systematic manner or just in a haphazard way? If in a right way it is only as a result of careful training, for her natural tendencies are much more toward looking over her letters or laces or ribbons or throwing herself across the bed to finish the very interesting story which no doubt she has been forbidden to read until the work was finished, and, forgetting all else but the story, reads on, until the stern voice of an irate mother recalls her to her neglected duties; then, angry at being disturbed, she hastily throws down the book or paper and carelessly makes up the bed and puts the room to right, probably bewailing her sad fate in not being allowed to "ever see a minute's rest."

A good plan for a young girl is to glance at the clock when she begins work in her room, and see just how long it takes her to get the work done. Then take the parlor, if it needs attention, and see just how much time it takes to get through there, not stopping for anything until her work is through. She will be very much astonished if she has never made the experiment; but if she goes in, picks up a sheet of music, sits down to the piano, plays that over, then perhaps half a dozen other lively airs, then begins to pack up her music with the broom stuck under her arm, and stopping every little while to look for some new piece in some catalogue or other, or goes out to her flower-beds and forgets the room altogether, until recalled to earth by the voice of the mother, never fails to consider herself a much-abused individual, and loudly bewails her fate that she "can never have a minute's time to practise," that she "must work all the time," etc. Or if she is in a talking humor, makes countless trips back and forth between the rooms where she is at work to those where her mother or some other member of the family is busily engaged at her various duties, to impart some piece of news which would have kept just as well until a leisure time, instead of stopping her own work and hindering others.

If one only looks at the matter rightly she will see that she not only has more time, but time that she can use in a much more enjoyable manner if she will only do her work at its proper time and as quickly as possible. The house all tidy is then a delightful place in which to rest or sew or read or study, or whatever one may choose to do; one is rid of that dreadful feeling of "everything at sixes and sevens" should any one happen to call. The same rule applies to haste in dressing for the street, church or elsewhere, "be quick;" do not, I beg of you, stand before the glass smoothing a wrinkle here or there, as though you were fitting a dress for the first time; but consider the dress as finished, and proceed to adjust its fastenings and adornments with all possible dispatch, giving yourself and waiting friends just that much more pleasure, and my word for it, the habit of quickness in all things, unless it be a hasty marriage or an attempt to commit suicide, will in every case lead to a happier state of being.

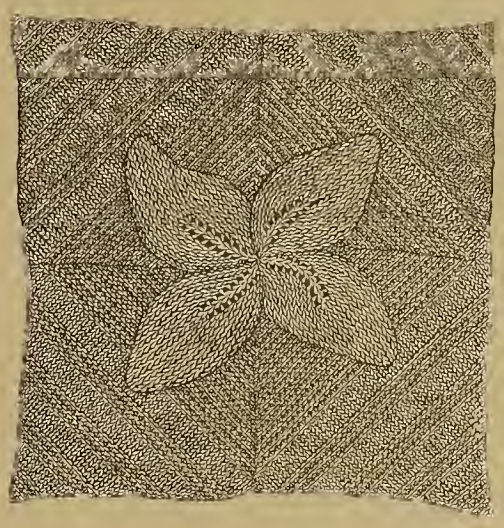
MRS. J. D. CONWAY.

KNIT BEDSPREAD

ABBREVIATIONS.—O, over; k, knit; p, purl; n, narrow; p 2 tog, purl 2 together.

Use No. 12 Dexter cotton. Cast on needle one stitch.

First row—O, k 1.
Second row—O, k 2.
Third row—O, k 1, o, k 1, o, k 1.
Fourth row—O, k 1, p 3, k 2.
Fifth row—O, k 3, o, k 1, o, k 3.
Sixth row—O, k 2, p 5, k 3.
Seventh row—O, k 5, o, k 1, o, k 5.
Eighth row—O, k 3, p 7, k 4.
Ninth row—O, k 7, o, k 1, o, k 7.
Tenth row—O, k 4, p 9, k 5.
Eleventh row—O, k 9, o, k 1, o, k 9.
Twelfth row—O, k 5, p 11, k 6.
Thirteenth row—O, k 11, o, k 1, o, k 11.
Fourteenth row—O, k 6, p 13, k 7.
Fifteenth row—O, k 13, o, k 1, o, k 13.
Sixteenth row—O, k 7, p 15, k 8.
Seventeenth row—O, k 15, o, k 1, o, k 15.
Eighteenth row—O, k 8, p 17, k 9.
Nineteenth row—O, k 9, n, k 13, n, k 9.
Twentieth row—O, k 9, p 15, k 10.
Twenty-first row—O, k 10, n, k 11, n, k 10.
Twenty-second row—O, k 10, p 13, k 11.



Twenty-third row—O, k 11, n, k 9, n, k 11.
Twenty-fourth row—O, k 11, p 11, k 12.
Twenty-fifth row—O, k 12, n, k 7, n, k 12.
Twenty-sixth row—O, k 12, p 9, k 13.
Twenty-seventh row—O, k 13, n, k 5, n, k 13.
Twenty-eighth row—O, k 13, p 7, k 14.
Twenty-ninth row—O, k 14, n, k 3, n, k 14.
Thirtieth row—O, k 14, p 5, k 15.
Thirty-first row—O, k 15, n, k 1, n, k 15.
Thirty-second row—O, k 15, p 3, k 16.
Thirty-third row—O, k 16, n, k 17.
Thirty-fourth row—O, k 16, p 2, k 17.
Thirty-fifth row—O, k 17, n, k 17.
Thirty-sixth row—P 2 tog, p 34.
Thirty-seventh row—N, k 33.
Thirty-eighth row—P 2 tog, p 32.
Thirty-ninth row—P 2 tog, p 31.
Fortieth row—N, k 30.
Forty-first row—P 2 tog, p 29.
Forty-second row—N, k 28.
Forty-third row—N, k 27.
Forty-fourth row—P 2 tog, p 26.
Forty-fifth row—N, k 25.
Forty-sixth row—P 2 tog, p 24.
Forty-seventh row—P 2 tog, p 23.
Forty-eighth row—N, k 22.
Forty-ninth row—P 2 tog, p 21.
Fifticth row—N, k 20.
Fifty-first row—N, k 19.
Fifty-second row—P 2 tog, p 18.
Fifty-third row—N, k 17.
Fifty-fourth row—P 2 tog, p 16.
Fifty-fifth row—P 2 tog, p 15.
Fifty-sixth row—N, k 14.
Fifty-seventh row—P 2 tog, p 13.
Fifty-eighth row—N, k 12.
Fifty-ninth row—N, k 11.
Sixtieth row—P 2 tog, p 10.
Sixty-first row—N, k 9.
Sixty-second row—P 2 tog, p 8.
Sixty-third row—P 2 tog, p 7.
Sixty-fourth row—N, k 6.
Sixty-fifth row—P 2 tog, p 5.
Sixty-sixth row—N, k 4.
Sixty-seventh row—N, k 3.
Sixty-eighth row—P 2 tog, p 2.
Sixty-ninth row—N, k 1.
Seventieth row—P 2 tog.

This completes one small square. Four make one block, with the leaves sewed to the middle with No. 8 thread.

MRS. CARTER.

INDIAN-MEAL RECEIPTS

INDIAN LOAF-CAKE.—Ingredients: One pound of white corn-meal (bolted), one fourth of a pound of butter, two eggs, one half pound of sugar, one fourth of a pound each of raisins and currants and one heaping teaspoonful of baking-powder. Cut up the butter in the meal, mix in the baking-powder, pour over as much hot milk (sweet) as will make a thick batter, and beat the eggs very light; when the batter is cool pour them into it. Seed the raisins, pick over the currants, mix them with the raisins and dredge them with wheat-flour. Stir the fruit into the batter and add the sugar. Bake in a moderate oven two hours.

INDIAN LAYER-CAKE.—Prepare the batter the same as for the loaf-cake, leaving out the raisins and currants. Bake in jelly-cake tins, and while the layers are warm spread between them a filling made this way: Beat two eggs to a cream, and add to them two cupfuls of sugar and one cupful of raisins and currants mixed. Beat all together until well blended.

INDIAN PUDDING (Baked).—Scald a quart of sweet milk and add to it three heaping tablespoonfuls of white corn-meal and a pinch of salt, first stirring the meal smooth in a little cold milk, so there will be no lumps. Stir until the mixture thickens, remove from the fire, add one half cupful each of sugar and molasses, one tablespoonful of ginger, one teaspoonful of cinnamon, one half cupful of seeded raisins, one tablespoonful of butter and three well-beaten eggs. Pour into a buttered baking-dish and bake one hour. Remove from the oven and cover with a meringue made by whipping the whites of two eggs to a stiff froth and adding three tablespoonfuls of sugar and one teaspoonful of vanilla; return to the oven to brown lightly, and serve hot with cream and sugar.

INDIAN PUDDING (Steamed).—Ingredients: One cupful of sweet milk and one cupful of sour milk, one cupful of white corn-meal, one cupful of flour, one even teaspoonful of soda, one half teaspoonful of salt and one cupful of prunes. Dissolve the soda and salt in the milk, then stir in all the ingredients, adding the prunes last; turn into a mold, and steam one hour.

INDIAN DRESSING FOR BAKED FOWLS.—Break cold corn-bread into small pieces, put them into a spider, and add one heaping tablespoonful of lard or beef-drippings for every pint of the crumbs; add salt, sage, pepper and sweet marjoram to taste; pour over the mixture all the boiling water the vessel will contain; set the spider on the back of the range and let cook slowly until the dressing is of the right consistency to handle, then remove from the fire, and when cool enough add two eggs well beaten.

MRS. W. L. TABOR.

SEWING FOR LITTLE FINGERS

It certainly is not the most delightful task in the world to teach awkward little fingers the intricacies of plain needlework, but it is such an important one that one wonders how mothers can neglect it. There seems to be a universal belief that after a girl has grown up sewing will come naturally to her, so no attention is paid in childhood to this useful occupation. Many a bride finds the hardest work in her new home to be the common mending and darning which has always been done for her at home, while the making of new garments must be left entirely to hired help.

It is always a mistake to allow little girls to look upon sewing as a task. They should be encouraged to think of it as a pleasure and a means of passing many a delightful hour, but never as a hated task or punish-

ment for wrong-doing. One woman of my acquaintance always made her daughter sew two quilt-patches together when she was naughty, and the young lady has two puckered, tear-stained quilts by which to remember her childhood fits of petulance and anger. The coarse, uneven stitches speak eloquently of the child's dislike for needlework, but not more eloquently than the dresses minus hooks and eyes that the young lady now wears. She says she hates untidy clothes, but cannot bring herself to use a needle, so frayed bindings and buttonless gloves are always in evidence when she appears.

In teaching sewing always begin with something small and pretty. If the child can finish the piece the same day it is begun it will give added zest to the next lesson. The gay cloth iron-holders or padded lifters for hot pokers and pans about the kitchen stove can be made in a short time with a little judicious assistance from older fingers, and the children will be delighted to see mother using something they have made for her. If patchwork is chosen for the first work, and that is the most convenient thing a busy mother can provide, let it be a pincushion-cover or bright little doll's quilt, so the childish fingers will not weary of the task. After a love for needlework has been firmly established, the more useful bits, like hemming towels and dust-cloths, sewing carpet rags and darning stockings, can be added to the list.

A good plan is to save the bright pennies to pay for some neat piece of sewing or help out the dull task of carpet rags, but let the little girls have plenty of time for doll-clothes, and sewing will always be a pleasure. Every spring for a few cents you can buy bright remnants that are just the thing for dolly's wardrobe, and in the millinery department of most stores you can buy large bundles of silk and velvet scraps that can be used in many kinds of fancy-work.

Little baskets such as Christmas candies and nuts come in can be fitted up for work-baskets, but I have never yet seen the child who was not delighted with a cigar-box fitted up with tiny scissors, thimble, needle-book and spools. Little pink and blue thimbles are sold for three cents apiece in the stores, and a dull-pointed shears for ten or fifteen cents, so each child should have her own private work-box.

After a few years of childish, uneven stitches in the common sewing about the house and on doll-clothes take up such things as aprons, trimmed underclothes, gingham pillow-covers, dainty drawnwork on the finer towels and table-linen, and you will be surprised to find how much responsibility is lifted from your own shoulders. When each girl can do her own mending and help in making new garments you will be amply rewarded for every tiresome moment spent in guiding chubby little moist fingers along the tangled seams; and, more than all, the knowledge of sewing will be acquired for all time almost unconsciously if rightly managed.

Many a weary young mother whose mending-basket is a regular nightmare to her feels defrauded of a birthright because she was never taught in childhood the use of the one-eyed servant. HILDA RICHMOND.

DRINKS AND PUDDING AND CAKE RECEIPTS

Grape-fruit juice, either spiced or plain, is a good substitute for wine.

Keep a canful of sugar-syrup on hand for making lemonade. Pineapple or strawberry flavoring combines well with the lemon.

Chocolate for a reception or a luncheon should be made from the unsweetened article. The sweetened may be used for the five-o'clock tea.

Water for a hot drink should be freshly drawn and come "just to a boil." If the air-bubbles have escaped by standing or boiling it will taste stale.

Make tea or coffee in a porcelain-lined pot and cleanse it well after each using. Boiling tea will bring out the tannin, which is the poison element.

The French believe that "drip coffee" without cream or sugar is the most wholesome. Coffee should not be boiled. Black or after-dinner coffee, which is double the strength of breakfast-coffee, is said to aid digestion.

To make a drink from cocoa-powder use scalding milk. The most nutritious cocoa drink is made from the "nibs" with water. Add a little vanilla, and mill with an egg-beater. Serve with whipped cream if desired.

APPLE MERINGUE PUDDING.—Line a tin with pie-crust. Stew rich, sour apples and sweeten as for apple sauce; spice if desired. Put a layer in the pastry, then a layer of bread with the crusts removed, then another layer of apples. Place in the oven long enough to bake the crust, then cool. Add the meringue, and return to the oven to set.

MERINGUE.—The beaten whites of two eggs, one half cupful of powdered sugar added gradually, and one teaspoonful of lemon-juice or a little lemon extract.

STEAMED GRAHAM PUDDING.—Sift two cupfuls of Graham flour until the hulls are removed. To the last sifting add one tablespoonful of cinnamon, one teaspoonful of allspice, one half teaspoonful each of cloves and salt and one fourth of a teaspoonful of nutmeg; steam, seed and chop one cupful of raisins. Put one teaspoonful of soda in a little warm water and add to one cupful of molasses. Blend with one cupful of sweet milk and the flour stirred in gradually. Beat well, and add raisins; pour into a funnel cake-tin, and steam two or three hours in a steamer.

FIG-CAKE.—Cream one half cupful of butter; add gradually one heaping cupful of sugar and one half cupful of sweet milk. To one and two thirds cupfuls of sifted flour add two level teaspoonfuls of baking-powder; sift and beat in thoroughly. Whip the whites of four eggs stiff; add half at a time to the cake, cutting and folding in well. Bake in a flat tin, and when cool cut in halves.

FIG-CAKE FILLING.—Chop fine one pound of figs after removing the hard ends. In one cupful of water dissolve one half cupful of sugar; when it comes to a boil add the figs, and simmer ten minutes, stirring constantly; cool, and spread between the two layers of cake. H. A. LUSK.

THE LESSON OF THOUGHTFULNESS

There are many people who have little annoying habits, such as drumming on the arm of a chair or making noises with a paper or some small object which they hold in their hands. They do these irritating things half unconsciously, never thinking that they cause others discomfort. We often see these habits in children, and that is the time when they should be suppressed and the right reason given why such tricks of manner should be cured.

It is ill-bred, of course, and it does not look well, and people will not think as much of a person who is bad-mannered; but none of these is the real true reason. The foundation of good manners is love to the neighbor. If a person does things to annoy that neighbor it shows a lack of love. In the child it may often be thoughtlessness, but it should be impressed on his mind that he must think of these things, and that although it may seem a very trivial thing to do a little drumming, it may cause intense discomfort to a tired or nervous person, discomfort which he has no right to inflict.

There is no danger of people being too thoughtful of others, and if this lesson of love to the neighbor is early impressed on children's minds it will make a difference in their whole after-lives.

SUSAN BROWN ROBBINS.

DOUGHNUT DAY

I.

Anythin' that's good to eat'll
Fetch a feller w'en he's leetle,
Fur there really is no knowin'
W'ut he needs to keep him growin'.
I'd hev rather tuk a switchin'
Than hev stayed out of our kitchen
When I heered my mother shovin'
Pies 'n' sich-like in the oven.
But, though all of it wuz jes' fun,
Doughnuts allus made the bés' fun.
Sat'day mornin's, warn't it gay?
(Sat'day wuz the doughnut day.)

II.

Mother'd mix flour, spice, 'n' so on,
Clean the board to knead her dough on,
Twis' 'n' wuk it tell she'd gut it
Ez she wanted it, 'n' cut it
Out in rings ez fine ez fiddles,
All 'ith roun' holes through their middles,
Ketch 'em, one by one, 'n' slide 'em
In the kittle w'ere she fried 'em.
Glory! how they'd hiss 'n' sizzle,
Then begin to swell 'n' frizzle!
'Twas sights better 'n any play
Watchin' mother doughnut day.

III.

We'd hev frolics—me 'n' mother—
W'en I'd peek this side or t'other,
Never mindin' w'ut she told me,
Fur she'd play at mad, 'n' scold me:
"Now look out—thet fat'll spatter
Fust ye know about the matter!
It'll jump rigbt at ye, mister,
So ye'll be all one big blister!
'Twill flare up 'n' burn your nose off,
Or spill down 'n' scald your toes off!
Wisht ye'd git out o' my way—
Botherin' roun' on doughnut day!"

—Manley H. Pike, in Western Horticulturist.

HINTS TO HOUSEKEEPERS

A peck of fresh lime in a damp cellar absorbs moisture and prevents malarious troubles.

One half teaspoonful of sugar scattered over a dying fire is better than kerosene and has no element of danger.

A cupful of hot milk flavored with orange-flower water or one of beef-tea is excellent for an invalid just before retiring.

Ivory knife-handles that have grown yellow with age or careless usage may be whitened by rubbing with sandpaper.

Remove rust from steel knives by covering them for two days with sweet-oil; then rub with fresh lime until the rust disappears.

A large rug of linen crash placed under the sewing-machine will catch threads, clippings and cuttings and save a great deal of sweeping and dusting.

To prevent the hair from coming out, take a pint of bay-rum and half an ounce of quinine. Mix, and apply to the scalp twice a day with a woolen cloth, rubbing it in well.

To keep polished steel from rusting after cleaning or when not in use, take a cloth with a little sweet-oil on it and wipe the steel over so that the surface may have a very light but warm coating of oil.

Aprons are always acceptable, whether the dainty silk and lace affair for use at a thimble-party or the substantial one to use when making a salad. An exchange says: We somehow have the idea that if an apron is for the kitchen it must necessarily be of either dark gingham or calico, or something wholly unattractive. As a matter of fact, a neat person will not wear a kitchen-apron after it is soiled; and dark material keeps clean no longer than light—it only conceals its unclean condition longer. There is no reason, then, why a kitchen-apron should not be attractive as well as useful; and any one who has used for this purpose a fine, pretty piece of delicately checked linen crash will scarcely want to return to the ugly, dark aprons of former days.

THE BUFFALO-MOTH

The coming of spring, when insect life in the house wakes up, brings consideration of the buffalo-moth. Each year this creature seems to go from one place, whence it is driven out, to a fresh territory where it has not appeared before. The best time to attack this pest is the month of March. Examine the edges of the carpet first, for the creature seems to prefer carpet, especially the dark edges. It prefers the reds, and will often eat out the red portions of carpeting and leave the greens and browns behind it, probably because of some distasteful matter in the dye. The only insecticide that will destroy the buffalo-moth is benzene. If this is sprayed or deluged into the edges of the carpet that is affected it will certainly prevent any further trouble this year. The creature, however, has a curious habit of returning to premises which it has once occupied a year or more before, and from which it was driven, so that constant watchfulness is necessary. Shake and hang out any rugs, hangings and other woolens, and expose them to the air and sunshine for twenty-four hours or two days. Examine the goods for the peculiar straight lines in which this moth eats. The common clothes-moth is a harmless creature when compared with the buffalo-moth. Airing and shaking finally drive this moth away. If there are any signs of either moth in early spring, when pantries and stowaway places should be cleaned, use benzene freely, and air the premises of the house repeatedly.—Exchange.

WHEN THE FRUITS APPEAR AND THE BEST TIME FOR USE

Strawberries appear in market March 1st to July 1st, and are best for canning in June.

Cherries from May 1st to July 15th. They are at their best in June.

Currants from July 1st to August 15th. They should not be used when overripe.

Raspberries from June 1st to August 15th. They are best in July.

Huckleberries from June 15th to September 1st. Can them in July.

Gooseberries from June 1st to August 15th. They are best for use in July.

Blackberries from June 15th to August 15th. Can in July, when prime.

Apricots and plums appear in our market June 1st, coming in until October 1st. Can in August and September.

Peaches from July 1st to October 15th.
Quinces September 1st to December 1st.
Pears from July 1st to November 1st.
Grapes from July 1st to December 1st.
Rhubarb from May 1st to July 1st.

B. T. Babbitt's Best Soap

Can't hurt the clothes, and doesn't hurt the hands. The top-notch of economical effectiveness. Does its work, does it well, the quickest and the easiest. There's the safety of certainty about it.

WATCH AND CHAIN For One Day's Work FREE
Fully Guaranteed.

We send this Nickel-plated Watch also a chain and charm, to Boys & Girls for selling 1½ dozen packages of BLUINE at 10c each. Send your full address by return post, and we will forward the Bluine, postpaid, and a large Premium List. No Money Required. We send the Bluine at our own risk. Send us the money that you get for it, and we send you the Watch, Chain and Charm postpaid. WE TRUST YOU.
THE BLUINE MAN, Box 392, Concord Junction, Mass.
The Old Reliable firm who sell honest goods and give valuable premiums.

Ice Cream is the cheapest of summer desserts—if you make it yourself in a
Lightning Freezer
RUNS EASY
A few minutes mixing ingredients, a few minutes easy turning, and it's ready to eat. Send for Booklet of Recipes
North Bros. Mfg. Co., Philad'a

Reversible LINENE Collars and Cuffs.
Stylish, convenient, economical. Made of fine cloth, finished in pure starch, and exactly resemble fashionable linen goods.

No Laundry Work When soiled discard. Ten Collars or five pairs of Cuffs, 25cts. By mail, 30cts. Send 6 cts. in stamps for sample collar or pair of cuffs. Name size and style.
REVERSIBLE COLLAR CO., Dept C, Boston, Mass.
RUBENS DANTE TASSO MURILLO ANGELO RAPHAEL

The Rocker Washer

WARRANTED to do the family washing 100 PIECES IN 1 HOUR. No need for washboard; no wear on clothing. Write for special prices and description.
ROCKER WASHER CO. Clinton St., Ft. Wayne, Ind.
Liberal inducements to live agents.

FOR THE LADIES
Nothing richer or more fashionable this summer than a handsome lawn for your dress or shirt-waist. We manufacture the material and sell it to you in dress lengths at wholesale prices, 25 per cent cheaper than you can buy them of the large department stores; but do not take our word for it, prove it yourself by sending two-cent stamp with your name and address and we will send you our full line of samples, with prices and particulars. Goods delivered free of charge. WHITESTONE MANUFACTURING COMPANY, 76 Franklin Street, New York

RUBBER COLLARS CUFFS AND NECKTIES
AGENTS WANTED
SEND 2¢ STAMP FOR CATALOG AND TERMS
M. & M. MFG. CO. SPRINGFIELD, MASS.

BEST CALICO 3⅞c. Yard
gingham, 3⅞c.; seamless socks, 3¾c.; blueing, 1c.; soap, 1c.; stove-polish, 2c.; gold ring, 1c.; jeans, yard, 9½c.; spectacles, 3c.; men's jeans pants, 49c.; boy's pants, 14c.; men's $2.25 shoes, 98c.; men's shirts, 15c.; dippers, 2c.; knives, 3c.; shoe-blacking, 1c.; men's wool socks, 9½c.; box tacks, 1c.; men's fine suits, $3.98; rice, per pound, 3c.; oatmeal, 2½c.; smoking-tobacco, 3½c. Send for price-list. C. A. WILLARD CO., Chicago, Illinois.

If afflicted with weak eyes, use Thompson's Eye Water

LEND A HAND

BY CHARLES W. STEVENSON

In a moment of failure hold fast, have a care,
Keep thy faith in good work, for the right is still there;
And the labor of life unto others shall call,
Lend a hand; love is all!

In a moment of triumph hold fast to thy share,
Keep at work in good faith, for the right is still there;
And the life of thy labor 'tis thine to command,
Love is all; lend a hand!

—Boston Transcript.

KEEPING YOUNG

THE famous Scotch preacher Dr. Alexander Whyte says: "A thousand things may come in to make a man feel either old or young. The kind of life a man has lived—virtuous or vicious, religious or irreligious, idle or industrious, for himself or for God and his generation, the state of his health, the state of his fortune, his family life, his disappointed or fulfilled hopes in life, and so on." He goes on with the following fine illustrations:

Cicero wrote his Cato at sixty-three, and the great orator's design in that famous dialogue was to brace up those men around him whose knees were beginning to tremble and their hands to hang down about that time of life. And Cicero goes on to fortify first himself and then his readers with such examples as those of Plato, who died at his desk at eighty-one; and Isocrates, who wrote one of his best books at ninety-four, and who lived another five years on the fame of it; and Gorgias the Leontine, who completed one hundred and seven years, and never to the end loitered in his love of work, but died, leaving this testimony: "I have had no cause for blaming old age."

"I myself," adds Cato, "supported the Voconian law at sixty-five with an unimpaired voice and powerful lungs." And, best of all, at the age of seventy Ennius lived with such a heart as to bear nobly those two burdens which are by most men deemed the greatest—poverty and old age. Ennius bore those two burdens with what seemed to all men around him the greatest good-will.

On the other hand, in annotating the text, Bishop Lightfoot reminds us that Roger Bacon complained of himself at fifty-three as already an old man. And so, too, Sir Walter Scott lamented of himself at fifty-five as "a gray old man." Now, it must be admitted that those two Christians do not come out at all well when set beside the brave-hearted heathens. Only, Dr. Samuel Johnson's shout must not be forgotten, "Drink water, sir, and go in for a hundred!" And he drank water and went in for reading the best and writing the best, till he published his masterpiece after he was threescore and ten.

Dante's "old age" in the Banquet begins at forty-five. But, on the other hand, Tacitus declares that if he had one foot in the grave it would not matter very much, he would still be reading and writing the best.—Christian Endeavor World.

A LONELY BOY IN A GREAT CITY

Major James B. Pond in a recent article tells of his first day's loneliness in New York City:

"On the morning of my first day in New York I started out from my hotel—the old Arlington it was—to walk down Broadway. If I had been lonely in my little room I had not noticed it, and not until I had walked down Broadway and got into the thick and hurly-burly of the crowd did I begin to appreciate the truth and beauty of the song, 'Home, Sweet Home.' 'I wonder if Payne felt like this when he wrote the words of that melody,' I said to myself, recalling an almost forgotten story regarding the alleged way in which Payne had come to write the thing, a story which I had read in an age-yellowed scrap-book. I walked on and on, and the crowd grew thicker and thicker, and all the while I was growing more and more lonesome. I became suddenly convinced that I had a dozen kinds of heart disease. I could feel the very outlines of that vital organ, so badly did it ache, but my brain was not able to compute its weight. How eagerly I scanned each face, in the vain hope that I might see a familiar countenance! I peered at the names on the shop-windows, but they, too, were strange. As a dying man will grasp at a straw, so did I strive to find some familiar face or sight or sound or thing in that maddening crowd, and was about to give up the task when the name of P. T. Barnum, in great gold letters, blazoned on the entrance to the museum which the famous showman conducted on lower Broadway. I bought a ticket and went in and introduced myself to Mr. Barnum. 'Mr. Barnum,' I said, 'I am wretchedly, miserably, hopelessly lonesome and homesick for sight of a familiar face, and as I saw yours when you brought your circus to Fond du Lac, ten years ago, I just had to come and speak to you.' 'I know all about it, my boy,' he replied, giving me a friendly slap on the shoulder."

One of the greatest forces which the church has to take into account in trying to save men and women is loneliness. Multitudes are drawn into sin because they are homesick. The church that is full of kindness, of social fellowship, aggressively seeking to make people welcome, can save the multitudes of lonely, homesick youth every year coming from the country and the village to the great cities.—Current Anecdotes.

THE REAL BEYOND THE IDEAL

A touching story was cabled from London, England. It tells how an English nobleman, blind from childhood, had his sight restored just as he was leading his bride to the altar, and then and there saw her for the first time. The sentimental value of the story is made complete by the fact that the bridegroom was drawn more deeply in love than ever by this sudden vision of his bride in all her loveliness of maidenly blushes, orange-blossoms and wedding-gown of angelic white. He had wooed and won her "sight unseen," as the children's old nursery game has it, but she turned out to be even fairer than his fancy had painted her. He had made no mistake in his unseen selection; she was lovelier than he had apprehended, we have no doubt; but he who chooses Christ by faith as his portion, though unseen to his senses here, will find him far beyond the utmost stretch of his imagination when he shall see him as he is and is transformed into his likeness.—Christian Conservator.

A GIGANTIC FICTION

Easy to descend! Oh, do let us have done with such a misconception! The most difficult thing that ever a man has to do is to descend. If you want to go down, the first thing you have to do is to do violence to the fine instincts of the body; if you want to go down, you must withstand the eloquence of the affections; if you want to go down, you have to trample under foot your sense of self-respect; if you want to go down, you always have to burst some social bond that holds you like a golden fetter; if you want to go down, you have to argue against your noble understanding; if you go down, you have to fight a bitter battle with the majesty of conscience. The most difficult thing that any man ever has to do is to go down. For the way of transgressors is hard, but the way of virtue is pleasantness, and her paths are peace.—Rev. W. L. Watkinson, in Christian Endeavor World.

WHAT THE WORLD NEEDS

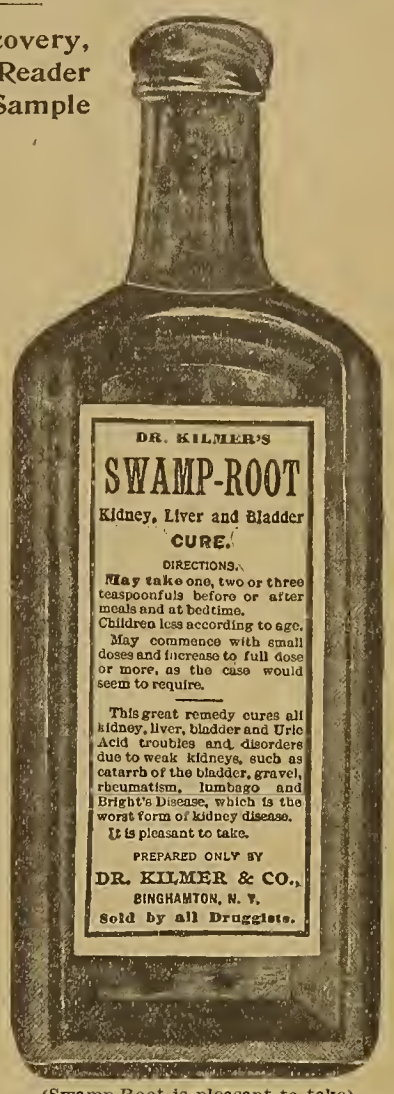
What this old world, which seems so cheerless and unkind to the great majority, most needs is not doctrine or instruction, valuable as these are in themselves and in their proper places, but lives inspired by the Christ mind and purpose, which expend themselves in a ministry of light and help to others. The smitten, desolate and unfortunate multitude may have no ear for right teaching, but they recognize immediately the uniqueness of a life which reaches down unselfishly to their great need. This is what is meant by Christlikeness. That is what Bishop Simpson meant in his great sermon when he said that the Christian was to be a real Christ unto men.—Zion's Herald.

INDIVIDUALS may perish, but truth is eternal.—Gerrald.

TEST FOR YOURSELF

The Wonderful Curative Properties of Swamp-Root

To Prove what this Wonderful New Discovery, SWAMP-ROOT, will do for YOU, Every Reader of Farm and Fireside may Have a Sample Bottle Sent Absolutely Free by Mail.



(Swamp-Root is pleasant to take)

It used to be considered that only urinary and bladder troubles were to be traced to the kidneys, but now modern science proves that nearly all diseases have their beginning in the disorder of these most important organs.

The kidneys filter and purify the blood, that is their work.

Therefore, when your kidneys are weak or out of order, you can understand how quickly your entire body is affected, and how every organ seems to fail to do its duty.

If you are sick or "feel badly," begin taking the famous new discovery, Dr. Kilmer's Swamp-Root, because as soon as your kidneys are well they will help all the other organs to health. A trial will convince any one.

Among the many famous cures of Swamp-Root investigated, the one which we publish this month for the benefit of the readers of FARM AND FIRESIDE speaks in the highest terms of the wonderful curative properties of this great remedy. Mr. Robert Berner, 14 West 117th St., New York City, writes: "I had been suffering severely from kidney trouble. All symptoms were on hand; my former strength and power had left me; I could hardly drag myself along. Even my mental capacity was giving out, and often I wished to die. It was then I saw an advertisement of yours in a New York paper, but would not have paid any attention to it had it not promised a sworn guarantee with every bottle of your medicine, asserting that your Swamp-Root is purely vegetable, and does not contain any harmful drugs. I am seventy years and four months old, and with a good conscience I can recommend Swamp-Root to all sufferers from kidney troubles. Four members of my family have been using Swamp-Root for four different kidney diseases, with the same good results." Truly yours,
ROBERT BERNER.

Weak and unhealthy kidneys are responsible for many kinds of diseases, and if permitted to continue much suffering with *fatal results are sure to follow.* Kidney trouble irritates the nerves, makes you dizzy, restless, sleepless and irritable. Makes you pass water often during the day and obliges you to get up many times during the night. Unhealthy kidneys cause rheumatism, gravel, catarrh of the bladder, pain or dull ache in the back, joints and muscles; makes your head ache and back ache, causes indigestion, stomach and liver trouble, you get a sallow, yellow complexion, makes you feel as though you had heart trouble; you may have plenty of ambition, but no strength; get weak and waste away.

In taking Swamp-Root you afford natural help to Nature, for Swamp-Root is the most perfect healer and gentle aid to the kidneys that is known to medical science.

Many women suffer untold misery because the nature of their disease is not correctly understood; in most cases they are led to believe that womb trouble or female weakness of some sort is responsible for their many ills, when, in fact, disordered kidneys are the chief cause of their distressing troubles.

If there is any doubt in your mind as to your condition, take from your urine on rising about four ounces, place it in a glass or bottle and let it stand twenty-four hours. If on examination it is milky or cloudy, if there is a brick-dust settling, or if small particles float about in it, your kidneys are in need of immediate attention.

If you are already convinced that Swamp-Root is what you need, you can purchase the regular 50-cent and one-dollar size bottles at the drug-stores everywhere.

SPECIAL NOTICE.—*Swamp-Root, the great Kidney, Liver and Bladder remedy, is so remarkably successful that a special arrangement has been made by which all readers of Farm and Fireside who have not already tried it may have a sample bottle sent absolutely free by mail. Also a book telling all about kidney and bladder troubles and containing many of the thousands upon thousands of testimonial letters received from men and women cured by Swamp-Root. In writing be sure and mention reading this generous offer in Farm and Fireside when sending your address to Dr. Kilmer & Co., Binghamton, N. Y.*

SALARY $780.00
Per Year and all expenses Paid.
$65.00 MONTHLY IN CASH.

TRUSTWORTHY MEN AND WOMEN wanted in each state to travel and advertise the business of an old established house of solid financial standing. Salary $780.00 per year and all expenses—payable $65.00 and expenses each month in cash direct from headquarters. No canvassing before nor after appointment required. Good references expected. This is a solid position of character and importance, with bona fide monthly salary and expenses paid in cash. Enclose reference and self-addressed stamped envelope. THE DOMINION COMPANY, 333 Caxton Building, Chicago.

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Peace of mind is sure to go.
A-Corn Salve is the remedy. 15 cents. From druggists, or by mail. Giant Chemical Co., Philadelphia.

ECZEMA Facial Blemishes, Tetter, Salt Rheum, Barber's Itch, Scald Head, Ring Worm, Itching Piles, Sore Eyelids, and all Skin diseases promptly cured by Spencer's Ointment. Sent to any address on receipt of 25c. A. O. PILSON, Pharmacist, 1327 W. Baltimore St., Baltimore, Md.

Without Experience

BY FRANK H. SWEET

PART I.

"WHAT'S your notion 'bout goin' to town, Sairy?" And Farmer Lish Hopkins paused at the door, his shoulders still humping for a position inside the coat that was beginning to strain across his shoulders. "Suit ye to a T, hey?"

"Well, no, I don't guess so to-day, Lish," was the placid answer. "It's been my bakin'-day, an' now I've got to black up the stove an' wash the floor. Ye'd have to wait too long for me to git ready."

"Oh, I don't mean to-day," with a grin; "I mean move up for good an' all; sell the farm an' be town folks like the best of 'em. I'd go into business, an' ye'd be so ye could have comp'ny an' see somebody most every day. I guess we could stand up straight with 'em, hey?"

His wife gazed at him blankly for a moment, then dropped upon a chair, her favorite mode of expressing astonishment.

"You don't mean—"

"Yes, I do mean jest that. I've been thinkin' on't for consider'ble of a spell, an' that letter from Hiram Potter out West, sayin' he'd made forty thousand dollars merchandizin', clinched the rivets close up. I've been a fool, Sairy!"

"I dunno, Lish; folks round here say ye've done well."

"Well," he snorted, with profound self-disgust, "for farmin' round here, mebbe! I've cleared off the mortgage an' put a thousand dollars in the bank, an' got together a pretty good head o' stock, but I've been twenty years a-doin' it, Sairy—twenty years! An' I've worked like a dog, sixteen hours a day an' more. I wa'n't goin' to miss anything for lack o' hard work; no, siree! An' now there's Hiram, who wa'n't thought nigh so smart as me to school, an' Reuben Smith, who keeps the hotel over to the Corners, an' Nathan Taylor, who sells us groc'ries, an' others. All of 'em have been wearin' good clothes right along, an' takin' money over their counters in handfuls; an' when there was offices an' honors to be given it was them as was went to. No, Sairy," his voice full of regretful conviction, "I ain't been so smart's I had a right to be. I've plowed up every dollar with straight back-achin' work when I might 'a' been takin' in lots more over my own counter, comfortable an' easy, with social folks round me, 'stead o' bein' way off in some field by myself." He drew his cap a little lower down and his collar a little higher up, and peered at her through the narrow slit between the two as though expecting some comment. "Suit ye to a T, hey?" he repeated.

She nodded reflectively.

"I dunno but 'twill," she conceded. "I'll miss the chickens an' butter-makin', but they be work; an' then, as ye say, I can see somebody most every day. N—no, I guess I won't mind."

"Course ye won't," he declared. "We'll be town folks, an' will have to put on our best bibs an' tuckers every day. Ye'll set on a stuffed cheer talkin' to comp'ny, an' I'll be ahind my counter discoursin' an' takin' in money; an' in the evenin' there'll be a lot gathered round my store talkin' politics an' things; an' they won't cost me a cent for entertainment, like visitors gener'ly do, but will be bringin' me in more money." His face broadened at the thought, and he began to rub his hands in pleased anticipation. Then his face fell a little as he added, "An' it's took my mossy old mind twenty years to git round to it."

"Ye don't s'pose there'd be no hitch 'bout—'bout ye doin' it, Lish?" she inquired.

"Hitch?" indignantly; "when Hiram an' Reuben an' Nathan have all done it and made money? Well, I guess not! Wa'n't they all ahind me in school? An', more'n that, wa'n't they obleeged to commence with brooms an' runnin' arrants? They didn't none of 'em have a cent, an' had to wait till they'd earned an' put by a few dollars 'fore they could even begin! Why, I'm bound to pull right ahead! Business goes 'cordin' to money, an' I'll have four thousand an' mebbe a little more to start on!" He raised his cap as though to make room for the magnitude of the thought, and then replaced it and drew on his heavy gloves. "Well, I'll go an' look round some. Folks in town are gener'ly pretty keen-scented on money, an' if they git wind o' my needin' a house to live in an' a store to merchandise in they might think rents ought to be higher. I'll look round sort o' casual. But ye're sure ye favor the idee, Sairy? I don't want to go into nothin' that ye couldn't smooth down to. Ye helped airn the money."

"Oh, I'll like it all right," she said, placidly; "I'm sure to. Ye needn't bother 'bout that, Lish. I've always hankered to shop without climbin' in an' out a waggin. I'm too hefty. An' say, Lish," raising her voice as he opened the door and let in a rush of air and whirling snow, "be sure to beat 'em down some. Folks always do better by ye when they're beat down."

It was late in the evening when he returned. But from the way the wagon rattled by the house and the unnecessarily loud "whoa!" which came to her when it reached the barn she felt that something momentous had happened; and this feeling was made a certainty when Lish flung open the door and she saw him trying to straighten his face into an expression of indifference.

"Supper ready, Sairy?" he demanded, airily. "I swan, I'm 'most starved!"

"Ye know it's ready, Lish," she answered, placidly; "it always is at seven to a minute. Ye know it's been gettin' cold jest an hour an' a half. So ye've hired a place?"

He removed his greatcoat and shook a miniature snow-storm from it to the floor, then flung the coat across a chair. His cap and gloves followed, after which he kicked his heavy cowhide boots into a corner near the fireplace.

"Ye ain't wuth a cent for news, Sairy," he grumbled; "ye either scent it out miles ahead or take it all for granted! I'd as soon have a stick to tell something to! How'd ye know I hired a place?"

"Goodness land!" scornfully, "it's stickin' out all over ye, Lish. I knowed it by the way the wheels went round when ye went by. Folks needn't ever wait for that mouth o' yourn to open to git all the news it has. Now, draw a cheer to the table an' eat supper, so I can be gettin' things to rights."

But Lish was not ready for supper just yet. Throwing himself into a chair and extending his stockinged feet across another toward the crackling flames he looked socially at his wife.

"Don't s'pose the wheels told ye what place I hired an' how much I'm to pay an' when we're goin' to move?" he asked.

"No," she confessed; "exceptin' they said ye was consider'ble set up; an' I figgered from that ye'd got the old drug-store stand. That's the biggest store in the best part o' the town, an' it's the only one I know on as bein' empty jest now."

Lish chuckled. "Wheels are mighty onreliable things to go by," he declared, "though I did hint sort o' casual 'bout that very identical store. But law! they wanted sixty dollars a month for it, much as I'd think the place could be wuth for a whole year. I jest laffed. Then I found that Wood & Co's. dry-goods store would be empty the first of April, an' I went an' looked that over. The drug-store folks had said their place bein' on a corner made it vallable; and as Wood & Co. was right in the middle of a block I figgered it might be cheap enough to wait for till April. But I didn't look round much; when they said fifty dollars I jest turned an' walked off." He stretched himself more comfortably across the chairs and chuckled again. "Good thing, though," he went on, reflectively; "It set me to lookin' round. Now, I've got the nicest, quietest an' best place in the whole town, 'cordin' to my notion. There's big shade-trees right in front, an' there ain't no rush an' rumblin' o' people an' waggins. Customers can come in an' go out easy an' comfortable like without no danger o' bein' run over nor nothin'. We can almost make believe we're livin' in the country, Sairy; an' the best of it is, I pay only ten dollars a month. Deacon Rounds wanted fifteen, but I beat him down to ten. Ye see, he built the place two years ago an' has never been able to rent it."

"Deacon Rounds' store! Ain't that consider'ble way out?"

"Only three streets; buyers'll be glad to come that fur jest for the quiet an' comfortableness o' the place. Why, we have to go eight miles for our groc'ries an' things. No, it's a bargain, Sairy; I seen that in a minnit, an' only for lettin' the deacon see I was set on't I'd 'a' snapped it the fust thing. An' I've hired the very next house to live in, so that'll be handy. Ours will be the only store on the whole street. But I guess I'd better be eatin'," pushing the second chair aside and rising to his feet; "there's a lot o' things I want to be overhaulin' to-night. Squire Brown's goin' to take the farm an' stock jest as they stand for thirty-five hundred. He'll be out to-morrer with the papers. Then we'll move right off. I want to open the store next week."

Her eyes widened a little at this.

"But ye ain't got no stock nor nothin' yet, Lish," she said.

He rubbed his hands complacently.

"That's all fixed, too, Sairy," he beamed; "I done a gist o' business up there. Some folks'd 'a' took two days for it, an' then thought themselves smart. I had figgered on havin' to go to the city, an' mebbe payin' as much as ten dollars for carfares an' expenses that wouldn't turn me in a cent; but a feller that was showin' samples to Mr. Wood follered me out, an'—an'—well, he got the whole thing from me an' is comin' down next week to show us samples. I told him I wanted you to pick out the womun's fixin's. He's a mighty keen an' friendly sort o' chap, Sairy, an' ye're bound to like him. He said he come here only once a month gener'ly, but that he would make a special trip down next week jest to 'commodate us—think o' that! An' he drums for one o' the biggest houses in the city. He said 'twa'n't no sort o' use for me to go up there when he could take my orders an' send the goods right down; an' I feel that way myself."

"I s'pose ye talked it over with Nathan Taylor fust?" she asked. "He's done business there the heft o' his life, an' could tell ye consider'ble. An' he's your own fourth cousin an' schoolmate."

Lish snorted. "Nathan Taylor! Huh! Don't s'pose he's goin' to encourage opposition, do ye? I did speak to him a little, an' he advised me to take the drug-store stand; said it was at the best part o' the business street an' on a corner, an' that the extra trade would pay the big rent a dozen times over. The idee; I seen in a minnit what he was arter. Long's I was bound to go in, he felt the faster I rushed through the money the quicker I'd git out. Why, jest one year's rent would take half a quarter of all we've got! An', more'n that, he said I'd better be pretty careful how I left things to them drummers, an' that I ought to go up to the city myself an' hunt round through the stores for jest the things I needed an' the best prices. But he didn't say a word 'bout the ten dollars or more expenses that wouldn't turn me in a cent. Oh, no! He even hinted I'd better hire a bright young man with experience to help in the store." Lish stretched his arms above his head in a long yawn of derisive independence. "No, thankey, Nathan Taylor," he said, when at last his mouth closed; "I don't feel't we need any expensive advisements. We'll run the store ourselves, an' we'll buy without any more cost than we can help, an' we'll pay ten dollars rent 'stead o' fifty or sixty. We're goin' into the business to make money an' not to spend it."

"'What?' She came quickly to his side and placed a hand upon his shoulder. 'For money?'"

PART II.

The next week the drummer was as prompt as his word, and came down with an extensive assortment of samples. An entire day was spent with him in the big, empty store, which Sairy had swept and scrubbed with her own hands. At first they were very deliberate and circumspect in their buying, Sairy being for ordering a dress-pattern from this and that, a few yards of one ribbon and another, a piece of braid or a cake of fancy soap, and Lish for breaking dozens and dividing boxes and packages. But after the drummer had repeatedly assured them that they were purchasing to fill a store, and not for their own immediate necessities, they grew much bolder, and yet holder, and finally, when a passion for buying had begun to possess them, they ordered from everything shown, and toward the end recklessly. After it was all over and the drummer had left they drew long breaths and looked at each other inquiringly.

"We've bought a sight, Lish," Sairy faltered.

"I should say so," rubbing his chin thoughtfully; "more'n was ever put into a store at one time before, I guess. But it's business," brightening up some. "As the feller said, 'we can't open a store with a yard o' 'lastic.'"

"No, I s'pose not. But how much do ye think we got, Lish?" her face still anxious.

"I—dunno," he confessed, slowly; "an' I ain't even an idee. I tried to go slow at first an' keep 'count, but I got off the track. Mebbe a thousand, two thousand, three thousand—though 'tain't likely so much as the last. We've never bought more'n twenty or thirty dollars' wuth at a time before, an' it's hard to guess. But two or three thousand dollars is good for a big pile o' stuff."

The second day the goods came down in boxes and barrels and kegs and bundles and in great square cases that required two men to roll from the freight platform into the wagon. Lish hired a team and a man to help and did all the hauling himself. The next day the bill came.

Lish opened and looked at it eagerly, then drew a long breath and rubbed his eyes and looked again. Then he went over each item with strained gaze, and carefully added up the long columns; finally he stumbled across the store to where Sairy was arranging fancy articles in one of the show-cases.

"Blame it all," he exploded, "look at this!"

Her face blanched a little.

"Oh, Lish!" she cried, "don't you s'pose there's some mistake?"

"No, I don't!" shortly; "I've looked it over!"

He seized his cap and jammed it viciously upon his head and left the store. The village bank was upon the principal street, and the cashier was an old friend. It was upon this bank that Squire Brown had given him a check for thirty-five hundred dollars. The cashier happened to be alone. By this time Lish had regained control of himself. Slipping the invoice into his pocket he drew out the check and placed it in the cashier's window.

"I'd like this cashed, Mr. White," he said; "an' I want to borry six hundred more. Ye know I'm good for it; an', anyhow, there's stock enough in the store."

"Oh, that's all right, Mr. Hopkins," laughed the cashier; "I never knew the time when your word wasn't good for six hundred. But how happens it you need more just now? You were telling me the other day that you intended to put only half the money into goods now and hold the rest as a reserve."

Lish grinned ruefully. "I guess I wa'n't much used to buyin'," he confessed. "Look here!"

He produced the invoice and spread it out in the window. The cashier looked at it curiously.

"I don't know much about this line of goods, Mr. Hopkins," he said at length, "but it seems to me there's a good many things here that won't find much sale. Now, this six dozen door-bells, for instance."

"The drummer said they were good sellers," ventured Lish.

"Maybe; but people here who use such things have already got them, and those who haven't don't want them. Then I see you have a lot of plush cloaks that I am sure have gone out of fashion."

"Sairy picked them out," objected Lish, sturdily; "she's had one for years, an' she says it's the warmest an' most comfortable cloak she ever owned. I guess they'll sell all right."

"Well, perhaps they will," acquiesced the cashier; "of course, I don't know. But about the six hundred. If I were you I wouldn't hire the money just yet; drummers have prices that are supposed to cover a generous credit system. Didn't your man say anything about it?"

"He said I could have thirty or sixty days' time as well's not, but I told him I'd rather pay cash."

"Very good, provided you have the money to pay, and also provided he allows you a fair discount for paying it. You'd better wait and find

that out. Send the firm what money you have and let the six hundred go until he comes round again. You may take in enough by that time to pay him. At any rate, find out his discount for cash, and if it's more than our interest come to me and I will let you have the money; only don't hire unless obliged to. And another thing, if you'll excuse me for saying so, you ought to have gone to the city yourself and taken a trustworthy, experienced man with you to help buy."

One morning a few weeks later Nathan Taylor entered the store. Lish was looking over his account-book, kept with a lead-pencil in much the same manner as he had jotted down items while on the farm. Sairy was at another counter engaged in rubbing her hand back and forth across a new piece of velveteen which had just been taken from its case. Nathan said, "Good-morning," and then paused and looked critically about the store, with evident disapproval in his eyes.

"You've done just what I was afraid of, Lish," he said at length; "a third of the goods won't sell in all the world. That fellow was too slippery, and has loaded you with a lot of unsalable stuff. But how is trade?"

"Fust-rate," replied Lish, eagerly and a little aggressively. He brought his account-book and laid it open upon the counter. "Look at that! Two hundred an' eighty dollars for yesterday, an' fifty dollars to one man. Ain't that purty good for a back-street store?" and he chuckled with returning good humor as he saw the surprise on Nathan's face.

But the surprise lasted only a moment, and was succeeded by a look of amused concern.

"See here, Lish," he said, earnestly, "I don't want to keep putting my oar in, but you ought to be more careful about your charges. That fifty dollars isn't worth the trouble of setting it down, and the others are pretty much the same. Why, most of those names are outlawed by every store in town. No wonder the fellow was willing to buy fifty dollars' worth so long as you were willing to let him have the goods. How much cash did you take in yesterday?"

Lish's face had lost its expression of good humor. He glanced across to the other counter.

"How much money'd we take in yesterday, Sairy?" Then, apologetically, to Nathan, "We sort o' divide up the business; Sairy she keeps track o' the money an' I look after the charges."

"One dollar and ninety-two cents," came back from Sairy after she had made a careful examination of a piece of paper which she kept in the show-case; "but we had to pay back twenty cents on account o' some cloth not suitin'."

"You see," said Nathan, significantly, "that dollar and seventy-two cents can be counted toward profit, but the charges are pretty much loss. I'm not saying this maliciously, Lish," as he noticed the other's face; "it's for your good. But I guess I'll be going."

Several times during the spring and summer Lish was sorely pressed for money, and more than once he started toward the bank, but each time turned back before reaching there.

"No, I won't borry a cent," he thought, grimly; "if I once begin I won't never know when to stop. Mr. White was right; if the business won't pay it won't; but the goods have got to be holden for the debts."

But the end did not come until another winter, just one year from the time he had left the farm. Then one day a tall, strongly built man in a heavy coat strode into the room.

"Elisha Hopkins, I suppose?" he interrogated.

"Yes; what can I do for ye?"

The man did not answer. Taking a paper from his pocket he unfolded it deliberately and read in a slow, ponderous voice for several minutes. Then he looked at the startled figure behind the counter.

"Going to pay it?" he asked.

"Can't jest now," Lish answered, weakly.

"I supposed so." He walked to the counter and held out his hand. "I may as well take the key," he said.

Lish nodded toward the door, from the lock of which the key had not been removed. The sheriff went and took it out, and then held the door open significantly. Lish realized that it was for him to go out.

How he stumbled across the room and out into the snow and across the yard to his own home he scarcely knew, only that it was with a feeling of thankfulness that Sairy had not happened to be in the store.

She was bending over the stove when he entered and sank heavily into a chair.

"Goodness land!" she exclaimed, straightening up suddenly, "what is the matter, Lish?"

"Nothin'," drearily; "only a sheriff's took the store an' shet me on the outside."

"What?" She came quickly to his side and placed a hand upon his shoulder. "For money?"

"Yes; twelve hundred."

"An' can't ye pay it?"

"No; an' if I could, there's another twelve hundred that'll be asked for soon's this is known. Mebbe I could raise it all to the bank," slowly, "but I dunno's I want to. I'm gittin' tired o' the whole thing."

"But the goods are wuth more'n what we owe, ain't they?"

"Twice as much, 'cordin' to what we paid, but there ain't no knowin' what they'll fetch to auction. Not more'n enough to pay the debts, mebbe."

She was silent for some minutes, looking at him.

"The man Squire Brown rented our farm to has moved away," she said at last, hesitatingly, "an' I hear the Squire wants to rent ag'in."

Lish looked up quickly.

"An'—an' wouldn't ye mind goin' back, Sairy?" he asked.

"Mind?" she echoed. "Oh, Lish! I never did really want to leave the farm!"

He rose sturdily to his feet.

"Then we'll go back," he declared; and there was something that was very near gladness in his voice. "I know how to run a farm, an' tryin' to keep a store's a dog's life, anyway."

A Cutworm Exterminator

BY WINWOOD WAITT

THE days were hot and showery; the nights were foggy and cold. The ubiquitous cutworm and the gaunt specter, malaria, were holding prolonged seances in the rich, alluvial bottom-lands of Wildcat Hollow. Down at Parkyn's Place, as Squire Parkyn's big plantation on Wildcat Fork was called, things were in bad shape for a profitable strawberry crop. The hired hands were taking turns at shaking with malarial chills, and in the intervals between sundown and daybreak the indefatigable cutworm was getting in his work at a giddy pace.

Squire Parkyn was in despair. Childless and rich, it yet went to his penurious heart to witness the devastation wrought by his stealthy, tireless foe. He got so mad he began to think he would almost (but not quite) part with several of his broad acres to get even.

Loitering leisurely homeward from an errand to the village store little Tommy Trotter, seeing the kitchen door of the Parkyn farm-house standing invitingly open, and scenting the rich aroma of frying crulls upon the air, conceived a sudden and lively interest in the health of Mrs. Parkyn.

"Howdy-do, Mis' Parkyn?" he said, cheerfully, sidling, hat in hand, into the big, sunny kitchen, from whose yawning oven poured the spicy odors of crisping crulls and browning pies. "Thot I smelt yer chimbly afire, an' come in to see if I'd be any use, helpin' yer a-throwin' water around, an' lookin' up chimbly an' gettin' chunks of fire in yer eyes, an' sich!"

"Sakes alive, child, the chimney ain't afire!" cried bustling Mrs. Parkyn, raking the last batch of turnovers out of the steaming-hot oven and pushing in a glorious array of golden custards. "Take a crull, Tommy, an' set down," she added, hospitably. "How's your maw an' paw, an' how's all the rest of the family to your house?"

"Oh, they're beamin'," said Tommy, between bites. "Maw's got the toothache, an' paw's got the roomatiz!"

"Dear me!" said Mrs. Parkyn, sympathetically. "An' how's your garden comin' on this wet spell?"

"Oh, 'our' garding is great; jes hummin'!" exulted Tommy, with his mouth full of unctuous crull. "We can see the garding-sass climbin' out o' the ground. 'Our' strorberries is too scrumptuous fer anything!"

"Do tell!" sighed the good lady, enviously. "Here comes Abner, all broke down an' wore out a-workin' an' a-worryin' in our truck-patch; an' it don't seem to amount to shucks, for all the good our strawberries is like to do."

"Howdy-do, Mr. Parkyn?" said Tommy, affably, reaching for another particularly brown crull. "Yer look awful tired an' tuckered out, Squire. Been plowin' yer tater-patch?"

"Plowin' nothin'!" growled the Squire. "Don't get no time to plow this spell. Keeps a fellow scratching in the strawberry-lot if he wants to save a berry. 'Pears like there's two cutworms to every single berry this year."

"Yer orter git yer one o' them cutworm sircumwenters an' strorberry 'sterminators my paw's got," said Tommy, thoughtfully appropriating another crull.

"Lands sakes! Somethin' new?" inquired the Squire, with interest.

"Oh, pritty new; that is, not werry old," said Tommy, cautiously, choking down a crull until the tears stood in his eyes.

"An' does it do the work satisfactorily?" inquired the Squire, anxiously.

"You bet! Never seed anything like it ter git ahead o' cutworms an' sich warmints," said Tommy, with enthusiasm.

"Do take another crull, Tommy, an' tell us about it, that's a dear!" coaxed Mrs. Parkyn, seductively. "Where did your paw ever come acrost it? Where did he buy it, an' how much did he pay for it, sonny?"

"Hold on, Hepsy Ann!" remonstrated her husband, impatiently; "you're gettin' the boy all muxed up and kerflummuxed with your two-forty questions a minute!"

"Not much she ain't!" interposed the imperturbable Tommy, incidentally helping himself to crull and turnover. "Pity yer ain't got nary kid o' yer own, Mis' Parkyn, ter keep these here crulls an' pies an' things from spilin'. I tell yer what, ye can jest knock the persimmon makin' crulls, ye can!"

"I'm awful glad you like 'em, Tommy," said the flattered housewife; then she added, wistfully, "Yes, 'pears like 'twould 'a' been a great blessin' if the good Lord had remembered to 'a' sent us a few boys an' gals to sheer the blessin's he has pervided for Abner an' me, an' to 'a' been company for us old folks, an' made this big, lonesome house of ourn cheerful an' bright-like winter evenin's an' long days when it rains, an' sich."

"Well, well, Hepsy Ann, 'tain't the will o' the Good Man! And we ain't no better off frettin' an' complainin' an' flyin' in the face of Providence!" said the Squire, sententiously, seating himself at the breeziest window and diving into the diminished pile of crulls.

"'Tain't flyin' in the face o' Providence to wish fer children to rise up an' call ye blessid, is it?" Hepsy Ann liked to have the last word, whether she got it or not.

"We can't allers tell; so we'd better keep on the safe side an' not wish fer what we ain't got, an' can't git, nohow. Now, Tommy, fire away an' tell us about that double-back-action 'sterminator yer paw's got up to your place."

Tommy fortified himself promiscuously and copiously with crull and turnover, edged his chair conveniently near the open door, and made sure his hat was easily accessible, then began:

"Well, yer see, our garding had a tremenjus lot o' them pesky cutworms into it, an' paw was gittin' kinder riled an' sahbage-like, an'—an' so—"

"He went right off an' bought the new masheen!" prompted Mrs. Parkyn.

"Well," admitted Tommy, cautiously slipping a crull into either pocket, "not this year he didn't!"

"Oh!" said Mrs. Parkyn, disappointedly. "Then 'tain't a new machine?"

"Why, when did he git it?" interpolated the Squire, in surprise.

"Oh, it was a right smart spell ago. You've seed it up at our place, I guess."

"Never seen any sich contraption in all my born days!" said the Squire, testily

"Nixy? Well, if that ain't funny!" said Tommy, staring incredulously. "As I was a-sayin'—"

"Did yer paw—" began Mrs. Parkyn, but a severe look from her husband squelched her eloquence.

"Come ter think it over, it was maw thet interjooced the new paytent," continued Tommy, meditatively, looking at the half-demolished turnover in his grimy hand rather dubiously.

"Did she buy it from a agint?" ventured Mrs. Parkyn.

"Certainly she didn't!" declared Tommy, with offended dignity. "Ketch her at it!"

"Oh, never mind all that palaverin', old lady; you keep still, now, an' gin the boy a chance. Now, go ahead, Tommy, and tell us how it works," cried the Squire, irately.

"It works fust-rate! Why, it works jest as easy as fallin' down-stairs!" said Tommy, airily, preparing to bolt the lone remaining crull. "Oh, you oughter see it a-workin', Mis' Parkyn—a-sneakin' along the best rows an' grabbin' the biggest an' reddest berries—"

"What's that?" cried Mrs. Parkyn, suspiciously.

"I mean ter say a circumwentin' the cutworms!" corrected Tommy, hastily, diving for his hat and darting out of doors.

"Hold on, thar!" roared the Squire; "hold on a minute, an' tell us what they call this yer new masheen up to your paw's! Tell me that, you young limb!"

"Well," deliberated Tommy, with his hand on the gate-latch, warily making sure that there were no obstacles in the way of instant flight, "that depends, Mr. Parkyn. Jinerally, fer everyday like, w'en ther' ain't anything particularly eggsitin' goin' on, they call it 'Tomy,' fer short. But wash-days (sliding nimbly through the gate and getting ready to flee), w'en ther's wood ter chop an' water ter carry an' the baby ter mind, they call it 'Tom-a-a-s! Tom-a-a-s! you Tom-a-a-s-s!'"

And Tommy shot away at an acute angle and flew up the country highroad, pursued by objurgations from the enraged Squire that are not likely to be found in any glossary of polite speech.

THE DIVINING-ROD DELUSION

I was greatly interested in the article appearing in your edition of December 22d, under the head "The Divining-rod." While able writers in our best magazines seem to concede occult powers to the "douser," and are spending valuable time of societies of psychical research in trying to discover the sources of this remarkable power, it strikes me that the most remarkable thing about the whole affair is the ignorance and credulity of the people who believe in it, and the utter lack of observation or reasoning on the part of the public generally.

"The Guardian" considers it very remarkable that the "douser" is able to find water in eighty-five to ninety per cent of his trials, and that there are well-diggers who will undertake to dig wells upon a contract of "no water no wages." Here in Lancaster County, and, in fact, all over southeastern Pennsylvania, our farms average about seventy acres to the farm, and on pretty nearly every farm there is one well, in most cases two, and in some instances three or four. In this section, in several of the counties, the old German population predominates, the language as well as many of the old beliefs and superstitions of the fatherland of one hundred and fifty years ago prevail, and yet they have long since discovered the hidden key of "the water-smeller's" knowledge and discarded his services. There was a period in our history, dating back fifty years or more, when this belief in his power found followers here, and we yet see the relics of it occasionally in wells and pumps set off in the corner of a garden or orchard or some other out-of-the-way and ridiculous place far from the house; but they were dug many years ago, and are now being rapidly abandoned.

Now when we dig a well we do not hunt the "water-smeller" or make any inquiry as to where we may find water, but the only question is in what place will it be most convenient to have the pump; for we have long since discovered the truth that we will get water wherever we dig for it. The depth to which we will have to go is governed mainly by the height of our location above the level of the nearest running surface stream, growing less in proportion to that height as the distance of the location of the well is greater from the stream. There is not a well-digger to my knowledge that will not dig you a well at any point you designate and agree to a contract of "no water no wages." More than that, if you desire he will level the ground for you and tell you within ten feet of just what depth you will be required to go; and yet he makes no pretense whatever to any occult power, and he would hardly know a hazel-twig if he saw one.—D. F. Magee, in the Literary Digest.

THE NATION'S DRINK-BILL

It is evident from the official statistics presented in this article that prosperity has brought with it an increased demand for spirituous and malt liquors, while the use of non-alcoholic beverages shows a very small gain, and in the case of coffee a decrease.

The same basis of retail cost is used in making the following estimate as was adopted in previous calculations. Out of $1,228,674,925 spent for beverages about eighty-six per cent is spent for alcoholic stimulants, of which fifty per cent is for beer, thirty per cent for whisky and four per cent for wines.

If the quantity of tea and coffee used is reduced to its equivalent as a beverage we find that more gallons of coffee are consumed than any other sort of drink, amounting to 1,257,985,296 gallons as against 1,221,500,160 gallons of beer—its greatest competitor.

From the latest report of the United States Bureau of Statistics we compile the following table, showing the per capita consumption of liquors in this country:

	SPIRITS GALS.	WINE GALS.	BEER GALS.	TOTAL GALS.
1891	1.43	.45	15.31	17.19
1892	1.51	.44	15.17	17.12
1893	1.52	.48	16.20	18.20
1894	1.34	.31	15.32	16.97
1895	1.13	.28	15.13	16.54
1896	1.01	.26	15.38	16.66
1897	1.02	.53	14.94	16.50
1898	1.12	.28	15.96	17.36
1899	1.17	.35	15.28	16.80
1900	1.27	.40	16.01	17.68

THE TOTAL DRINK-BILL

Bringing together into one group the cost at retail of all beverages we find that the United States consumed in 1900 alcoholic and non-alcoholic stimulants to the value of $1,228,674,925, as follows:

	DOLLARS
Alcoholic drinks	1,059,563,787
Non-alcoholic stimulants—	
Coffee	125,798,530
Tea	37,312,608
Cocoa	6,000,000
Total, 1900	1,228,674,925
Total, 1899	1,146,897,822
Total, 1898	1,177,561,366

The above represents a yearly per capita expenditure for beverages of $16.17 for the 76,304,799 inhabitants of the United States, or little less than four and one half cents a day.

The quantities of the four leading beverages consumed for the year ending June 30, 1900, were as follows:

	GALLONS
Coffee	1,257,985,296
Beer	1,221,500,160
Tea	416,515,885
Spirits and wines	112,675,873

The above proves that coffee and beer are the favorite national beverages, and that coffee holds its supremacy over fermented liquors; that the consumption of alcoholic liquor increases in prosperous times, and that it was larger in 1900 than for any year since 1893. It is less per capita now than ten years ago, in spite of last year's gain.—American Grocer.

PAYING HIS FARE

I want to tell you about a very odd passenger who takes a ride on a street-car every day, and with whom I have taken many a ride in this city away at the foot-hills of the Rockies. This strange passenger never says a word, not even a "good-morning" to the conductor when he gets on the car, though he is certainly old enough to talk, and really cannot be said to lack good manners, since he is quiet and kind in his behavior. Then he carries neither money nor tickets with him, but earns his ride in quite another way, and a jolly good ride he has, too.

This is the way he does it: At the foot of a long, long hill he is hitched to the car, and at the touch of the driver's whip starts off and plods his way along, nose down and ears laid wearily back, for it is hard work; and steadily and strong Ben pulls the car a mile or more to the end of the hill and the road.

Sometimes he seems to forget that there are any passengers inside anxious to get home to supper and a warm fire, and he has to be touched up with the whip to keep him from going to sleep, for Ben is earning his ride now and doesn't like it. But at the top of the hill he stops, is unhitched and walks around to a platform across the end of the car and gets in, and the driver fastens the little door at the side. Then the brakes are taken off and the car rolls merrily down the long hill, with its strange passenger on behind. Ben is a different horse now. Right gaily he sniffs the breeze and enjoys having a ride with folks!

But his rest is all too short. At the bottom of the hill his door is unlocked, and Ben backs off his platform and walks around to the front of the car to be hitched on again for the pull up the hill.

When I first rode with the funny passenger I didn't like to sit very near his end of the car, but now I feel like patting Ben and telling him what a good, faithful old fellow he is, and how glad I am I don't have to pay my fare as he does.—The Youth's Companion.

THE OLD GRAY BARN

BY ALOYSIUS COLL

Summer settles on your shingles,
Old gray barn;
Dusky dell and dewy dingles,
Sedge and tarn—
These for days of care and trouble,
When the thorn and rock and stubble
Break the buoyant floating bubble—
Bell of joy that jingles;
But when every heart is leaping
With the summer, I am keeping
Company with the dreamy, sleeping
Old gray barn.

Summer tells a little story,
Old barn door,
While she throws her glint and glory
On the floor;
She is telling how the clover
Blushes like a bashful lover,
And when harvest-days are over
How the seasons hoary,
Coming to the harvest after
Rain and sun and April laughter,
Rob for thee till bin and rafter
Hold no more.

You have all the gift of showers,
Old oak bin;
You have all the fruit of flowers
Stored within.
When the summer comes begin you
Then to rob the bone and sinew
Of the seasons, till within you
All the prey of mowers,
All the booty of the sickle,
All the grains of wheat that trickle
From the slaughter of the fickle
Children of the field and tarn,
Gather in your bulging shingles.
Oh, the summer in you tingles!
My heart with your old heart mingles,
Old gray barn.

DID THE JAPANESE DISCOVER AMERICA?

America has been discovered again—or, rather, it has been discovered that the Japanese discovered the country long before any of the dozens of other discoverers who discovered it before the time of Columbus. The latest discoverer, according to Associated Press dispatches, is Schuye Sonoda, a Buddhist priest of Japan, who has returned to San Francisco from Mexico with what he regards as convincing proof that his people discovered America one thousand years before Columbus, and carried their faith along the Pacific coast from Alaska to Mexico. Sonoda has been assisted by Senor Batres, archaeologist of the Mexican government. Sonoda followed the chronicles of Hoeir Shin, a Buddhist monk, who in 499 A.D. returned to his native land with an account of explorations that reached to a land he called Fu Sang, now identified by Sonoda as Mexico because of the maguey-plant. Sonoda says he found innumerable evidences of Buddhist influence over the natives of Mexico. Some of these were the Mexican zodiac with its twenty-eight hours, Oriental letterings and signs on temples, stone images and pottery, and hundreds of names which are slightly corrupted from Japanese. He found the temples invariably facing south, as in Tibet, the home of Buddhism, and in mosaics at Uitla he found the common cross of Tibet. He also found strong racial resemblances in features between the Mexican and California Mission Indians and the Japanese. So strong were these resemblances that when a California Mission Indian was dressed in Japanese costume and photographed, Professor John Fyer, of the chair of Oriental languages, University of California, declared that the photograph was that of a Japanese of the northern islands and bore no resemblance to a California Indian.

It is not at all improbable that both the Japanese and Chinese navigators, as well as those of other Eastern races, were familiar with the west coast of America. The remnants of the ancient civilization in Mexico, Central America and the northwestern part of South America all point to an Eastern origin. Many even hold that the unknown land of Ophir, to which King Solomon's ships sailed for gold, was located somewhere on the Pacific coast of the Americas, basing their belief on ethnological grounds and on the length of time required for the voyage, which is almost exactly that which would be required by vessels following the coast around by Bering's Strait and down the coast of North America.

Such discoveries of previous discoveries are important, as they offer opportunity for intelligent study of the early civilization of this continent. But as far as they have bearing upon the question of who the discoverer of America was they are unimportant. It is certain that many persons had known more or less of this continent centuries, and perhaps tens of centuries, before the time of Columbus. But Columbus was the first to make the fact known to the world at large, and as such he will continue to receive the credit for the discovery.—The Christian Conservator.

A JAPANESE MISALLIANCE

In spite of the fact that all Japanese look alike to the superficial observer, there is an exceedingly well-marked caste system in Chrysanthemum Land. The young samurai is expected to marry the daughter of a samurai of equal consequence, and there is as much ado over the departure from this rule as when with us the offspring of the ambitious millionaire secretly weds the lovely daughter of the small storekeeper. Here is an instance of the manner in which the high-born mother in Japan rebukes her high-born son for having fallen in love with a virtuous and beautiful sewing-girl.

"Is it true, Yorito?" his mother questioned him. In her voice there was heard the deterioration of something firmer than a pyramid—a mother's confidence in her son.

"Yes, august mother, madam—even as your honorable words."

"But—who is she—this daughter of a chonin? Tell it all, will you not, to your humble mother? A demon, a siren, that she should bind, enslave, hypnotize and delude you to this extreme extent! The degradation of yourself—this flinging shame at the stainless name of your sainted ancestor; this smearing the escutcheon of the proud samurai family; this dragging your father and your humble mother into a grave of shame and grief! You cannot be unaware of all these, I am sure. And for what, pray? To catch an ever-illusive glamour of a butterfly beauty! She may be very charming indeed, my son; and, of course, it is very natural for you to admire the beautiful—but—but—is there really no charm, no beauty among the maidens of fairer names and prouder houses? Look at your mother—I pray you—my hands are clasped as you see. This is the way I pray to the Buddhas, and now in the same manner I pray to you. Try first among the ladies of the samurai rank, and if— But who can she be—how came you to know her?"

"The humble one met her on the festive day of Gion, a year ago, august mother, and—but—"

"And never could forget her! Her power must exceed that of a mere woman. For this stranger on the street an acquaintance of a single glance seems to be strong enough to make you forget the honor of your ancient house; your parents, who have never left you since the day of your birth; and, above all, the self-respect of a samurai. Ah! my beloved, have you really stopped and thought, with your hand on the hilt of your sword, what a stain you are going to give to the soul of a samurai?"

Silence—the son and the spring day respected it.—Everybody's Magazine.

THE KEY TO BEAUTY

Perfect health is the key to beauty. Many a girl whose complexion might be clear and tinted if she would give it a chance goes through life with a thick, muddy complexion because she insists on sleeping with her windows shut and breathes bad air for at least half the night. There should never be a light during the night, unless in case of sickness. A light promotes crow's-feet, and if it is a gas-light it takes the freshness out of the air.

The majority of people wear too much clothing. The thick layers of clothing prevent the air from reaching the body and prevent the body from throwing off the waste matter.

The bath is a valuable aid to the necessary purity, but like all other things it is liable to abuse. A warm bath is seldom injurious, but the safest is a tepid or a quite cold one. Only a short time should be allowed for the bath, but the drying should be vigorous and thorough. After a bath in cold water an hour's walk is very beneficial if the clothing is good and warm.

When very tired sponge the face with warm water, making a lather of some good soap with a few drops of glycerin. Rinse the lather, and dry the skin with oatmeal. Wash the meal off with clean, warm water, and spray the face with cold water until the skin is firm.

The face is the most exposed part of the body, and therefore gets more soil and dust than any other part of the body; consequently, it needs more washing. In winter the water should not be cold, and soap should be used but once a day, and particular attention should be devoted to the corners. Great care should be taken in the drying, and the stroke should be made upward. The face should be thoroughly massaged while the skin is soft and moist.

If women knew how fearfully destructive face-powder is to the skin they would let perfect cleanliness and plenty of good, refreshing sleep do the work. Fatigue makes even a young woman have a drawn and tired look, which ages it, and rest only can remove this.

Diet has a great effect upon the complexion. Simple food is the best. Most of us eat too much meat and not enough vegetables and fruit.

Perfect health is better than any face-wash that can be produced. A cosmetic may whiten the face for a time, but it cannot clean the complexion nor make a lasting impression.—Cleveland Plain Dealer.

THE FAMOUS IRON CROWN OF LOMBARDY

The famous "iron crown of Lombardy," the royal diadem of Italy, was made over thirteen hundred years ago by Roman goldsmiths and sent by Pope Gregory the Great to the Goth queen Theodolinda. The outer circle is of gold, hinged in six parts and set with rubies, emeralds and sapphires on a ground of blue and gold enamel.

Within the circle is the iron band which gives it the name, and which is claimed to have been made from one of the nails of the cross. The first Lombardy king, at whose coronation it was used, was Agiluphus, in 591.

The last sovereign who wore the crown was Napoleon I. In May, 1805, he assembled at Milan the dignitaries of the empire, the representatives of his royal and imperial allies and a splendid circle of marshals and generals, and in their presence placed it on his head, repeating the motto of the "iron crown," "God has given it to me; woe to him who touches it!" Its home today is in the old cathedral at Monza.—Chicago Journal.

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All brand New Machines guaranteed during year, with best standard equipment; Mesinger and Hunt Hygienic saddles, Banner pedals, Record "A" or Morgan & Wright tires, adjustable and reversible handle bars; everything first-class. Let us ship you one on approval.

500 SECOND-HAND WHEELS taken in trade by our Chicago retail stores, standard makes, many good as new, to close out..... $3 to $8

DO NOT BUY a wheel until you have written for our FACTORY PRICES and FREE TRIAL OFFER.

Catalogues with large *photographic engravings* of our Bicycles and full detailed specifications *sent free* to any address.

Our offer to *ship on approval* without a cent deposit, and allow *ten days FREE trial* are made to everyone, and are an absolute guarantee of our good faith and the quality of our wheels.

EARN A BICYCLE distributing catalogues and taking orders for us in your town. You can make *$10 to $50 a week* as our agent, besides getting your own wheel free. *Write to us today.*

MEAD CYCLE CO., Dept. 43 D, Chicago.

Illustration shows machine closed, to be used as a center table, stand or desk.

SEND NO MONEY, cut this advertisement out and send to us and we will send you this OUR HIGH GRADE DROP-HEAD CABINET NEW QUEEN SEWING MACHINE, by freight, C. O. D., subject to examination. You can examine it at your nearest freight depot, and if found perfectly satisfactory, exactly as represented, equal to the highest grade sewing machines advertised by other houses at $20.00 to $30.00, and as good a machine as you can buy from your dealer at home at $30.00 to $40.00, the greatest bargain you ever saw or heard of, pay your railroad agent OUR SPECIAL OFFER PRICE $11.25 and freight charges. Give the machine three months' trial in your own home and we will return your $11.25 any day you are not satisfied.

OUR $11.25 NEW QUEEN SEWING MACHINE IS COVERED BY A BINDING 20-YEAR GUARANTEE, is made by one of the best sewing machine makers in America, has every new and up-to-date improvement, high arm, positive four-motion feed, very light running, does any work that can be done on any sewing machine made. It comes in a beautiful solid antique oak, drop head cabinet, as illustrated. Oak cabinet is beautifully finished, highly polished, elaborately finished throughout.

AT $11.25 WE FURNISH THIS SEWING MACHINE COMPLETE WITH ALL ACCESSORIES, including 1 quilter, 2 screwdrivers, 6 bobbins, 1 package of needles, 1 cloth guide and screw, 1 oil can filled with oil, and a complete instruction book, which makes everything so plain that even a child without previous experience can operate the machine at once. FOR 25 CENTS EXTRA, we furnish, in addition to the regular accessories mentioned, the following special attachments: 1 thread cutter, 1 braider, 1 binder, 1 set of plain hemmers, different widths up to ⅝ths of an inch.

THIS ILLUSTRATION gives you an idea of the appearance of the HIGH GRADE, HIGH ARM NEW QUEEN SEWING MACHINE which we furnish at $11.25, in the handsome 5-drawer drop head oak cabinet illustrated.

SEWING MACHINE DEALERS who will order three or more machines at one time will be supplied with the same machine, under another name, and with our name entirely removed, but the price will be the same, viz., $11.25, even in hundred lots. ORDER TODAY. DON'T DELAY. Such an offer was never known before.

OUR $98.50 UPRIGHT GRAND PIANO IS A WONDER. Shipped on one year's free trial. Write for free Piano Catalogue. Address your orders plainly to SEARS, ROEBUCK & CO., CHICAGO, ILL.

This Seasons Greatest Value.

For $47.50 The Regular Direct Factory Price
We furnish this $75 two-year guaranteed
A GRADE "AMERICUS" the most popular "LEADER" TOP BUGGY

in all our line: Genuine leather—quarter top, wool lined. Upholstery—all wool cloth or genuine leather; thousand mile axles; open head springs; Bailey body loops; quick shifting shaft coupler; painting—plain black or fancy; guaranteed hickory wheels; complete with shafts and all features of a first-class buggy.

NOTE THESE PRICES:

Top Buggy	$29.75	Surrey	$47.50
Spring Wagon	$32.50	Road Cart	$ 9.00
Double Farm Harness	$16.50	Single Buggy Harness	$ 4.25

& upwards

All grades of vehicles and farm, double, buggy and surrey harness—over 200 styles to select from. We have never been undersold and never will be. OUR VEHICLE AND HARNESS CATALOGUE bristles with splendid values and no prudent buyer will place his order without investigating our line. CASH BUYERS' UNION, (INC.) 158 W. VAN BUREN ST., DEPT. O-7 CHICAGO.

The First National Bank of Chicago vouches for our responsibility.

ALL METAL HERO KNIFE.

Two solid **best of steel blades**, bright metal handle, strongly rivcted, without holsters, being but two parts and nothing to hreak, giving the knife a smooth, thin appearanco. This is not a clumsy woodsman's knife but suitable for a gentleman's vest pocket, or desk or the school boy and in every way will be found practical and serviceable. Makes a most acceptable present for father or brother and is something

A new style thin knife that just fits the pocket without making holes in the cloth. Better for vest pocket use than scissors and given absolutely free as a present.

you will he proud to give away and an everlasting pleasure to the receiver. These Hero Knives are all the rage.

FREE OFFER. To quickly introduce our Healer of all Wounds, **Oxien Arnica Court Plaster,** we will send seven wallets **Free.** Each handy pocket wallet contains an assorted lot of different colored court plaster and although a regular 10c. store sale article you sell them for only 5c. each. Every person will buy a package as it "HEALS ALL WOUNDS SAVE THOSE OF LOVE." Send us the money after you sell the seven wallet style packages of court plaster, 35c. in all and we will send you a **Hero Knife** free, postpaid. These knives are as good as any 50c. knife you can get and are warranted O. K. **Girls Look** if you prefer a smaller or Ladies' Knife we will send one instead.
Arnica Court Plaster Co., Box 781, Augusta, Maine.

Big Four

The 'Buffalo Route' to

1901 Pan-American Exposition

Big Four Route in connection with Lake Shore & Michigan Southern and New York Central R.R. offers the finest equipped train service at frequent intervals to Buffalo from South & West.

M. E. Ingalls, President.
Warren J. Lynch, Genl. Pass. Agt.
W. P. Deppe, A. G. P. A.
Cincinnati.

Friends with a Long Memory

"One thing the Pan-American movement has done," says a Buffalo paper, "it has persuaded Buffalonians that they have not been forgotten by outside relatives and friends."

In the same way letters received by T. W. LEE, General Passenger Agent of the LACKAWANNA RAILROAD, asking for information about the Exposition, seems to show that the traveling public has not forgotten the Lackawanna as the shortest and most picturesque route to the grounds.

FIVE THROUGH TRAINS DAILY BETWEEN BUFFALO and NEW YORK

equipped with Pullman drawing-room, sleeping, and observation cars, magnificent dining-cars and vestibuled coaches.

A CHANCE TO MAKE MONEY

I have berries, grapes and peaches a year old, fresh as when picked. I used the California Cold Process. Do not heat or seal the fruit, just put it up cold, keeps perfectly fresh, and costs almost nothing; can put up a bushel in ten minutes. Last year I sold directions to over 120 families in one week; any one will pay a dollar for directions when they see the beautiful samples of fruit. As there are many people poor like myself, I consider it my duty to give my experience to such and feel confident any one can make one or two hundred dollars round home in a few days. I will mail sample of fruit and full directions to any of your readers for nineteen (19) two-cent stamps, which is only the actual cost of the samples, postage, etc. FRANCIS CASEY, St. Louis, Mo.

40c. PATTERNS FOR 10c.

Our Spring and Summer Catalogue of patterns contains all the very latest styles of garments. The patterns are especially suited for home dressmaking. Send your name for the catalogue. It is free. Address
FARM AND FIRESIDE, Springfield, Ohio

I CURE FITS FREE

A Full Size $1 Treatment of Dr. O. Phelps Brown's Great Herbal Remedy for Fits, Epilepsy and all Nervous Diseases. Address O. P. BROWN, 156 Liberty St., Newburg, N.Y.

OPIUM and **Liquor Habit** cured in 10 to 20 days. **No pay till cured.** Write DR. J. L. STEPHENS CO., Dept. A. S. Lebanon, Ohio

TWO SCHOOLS

I put my heart to school,
In the world where men grow wise.
"Go out," I said, "and learn the rule;
Come back when you win the prize."

My heart came back again.
"And where is the prize?" I cried.
"The rule was false, and the prize was pain,
And the teacher's name was Pride."

I put my heart to school,
In the woods where wild birds sing,
In the fields where flowers spring,
Where brooks run cool and clear,
And the blue of heaven bends near.
"Go out," I said; "you are only a fool,
But perhaps they can teach you here."

"And why do you stay so long,
My heart, and where do you roam?"
The answer came, with a laugh and a song,
"I find this school is home!"
—Henry Van Dyke, in the Atlantic.

WIRELESS TELEGRAPHY

The successful operation of wireless telegraphy means a great deal to the world. Marconi has done much to perfect the system since he first discovered it. The early idea was carried out by an elaborate set of instruments and apparatus, and an aerial wire hung from a tall mast. But the aerial wire and the tall masts have been replaced by more modern apparatus, and a cylinder but a few feet high is now employed in the service.

Marconi has successfully introduced the duplex telegraphy into his system, a step significant of wonderful advancement. Only recently he accomplished a remarkable feat. He had established a station at the Lizard, Cornwall, which is two hundred miles from St. Catharines, and on the first day of the reign of King Edward VII. Mr. Marconi succeeded in establishing perfect communication between St. Catharines and the Lizard.

Since that time he has established perfect communication in both directions and arranged to duplex the line, so that he could send two messages each way at the same time. It is stated that there is no reason why he should not send twenty messages save the cost of the instruments.

The Marconi system can be used in any kind of weather, fog or fine, wet or dry; in fact, it works better in wet weather than on a fine day.

To hundreds of thousands of people the Pan-American Exposition will afford the first opportunity of witnessing the operation of the Marconi system of wireless telegraphy. No one will want to miss it.

SAYINGS OF CONFUCIUS

Answering an eminent critic Mr. Frederick H. Seymour, the author of "Ye Wisdom of Confucius," says:

"You will, without doubt, be interested to know that my little book contains the greater part of the sayings of Confucius himself, for I have omitted only a little matter concerning ancestor worship, which, though curious, I regarded as uninteresting.

"Like those of Christ, the actual utterances of Confucius himself are very few, the great mass of Confucian literature being made up of the words of his disciples and the commentaries thereon by a host of scholars, down through the succeeding centuries, making an immense literature. Confucianism, occupying the place of religion to over four hundred million people, seems to be more of a code of ethics in which things unknown or not understood are regarded in a decidedly agnostic manner, and Confucius and his disciples seem to have resisted the temptation, to which the Mohammedan and Christian prophets alike have yielded, to describe the attributes of God and to localize the future rewards and punishments, as represented by heaven and hell.

"Certainly the teachings of Confucius are nobly philosophical and altruistic in the highest degree, and will readily compare with the best thought of modern times in these directions."

THE LARGEST BOOK IN THE WORLD

The largest book in the world has stood for years in the British Museum. This volume measures five feet ten inches in height, three feet two inches in width, is bound in leather, eight different skins having been used for its cover, and requires four strong men to lift it. It is kept closed with three gilt clasps, and the diamond-shaped spaces on the cover are filled with alternate representations of the rose, thistle and harp.

This huge book was presented to the British nation by King George IV. in January, 1823; but during this last half of a century it has attracted little attention, and its ponderous covers have not been opened for many years. If quantity of contents, apart from actual volume size, is considered, the Chinese Department of the British Museum contains a single work which occupies no fewer than five thousand and twenty volumes. This wonderful production of the Chinese press is an encyclopedia of the literature of China covering a period of twenty-eight centuries—from 1100 B.C. to 1700 A.D. It was purchased a few years ago for fifteen hundred pounds, and is one of only a very small number of copies now in existence.—Martin's Home and Farm.

"The inner side of every cloud
Is bright and shining;
I therefore turn my clouds about
And always wear them inside out
To show the lining."

A Year's Subscription Free

Send for Twelve Copies of

THE Woman's Home Companion

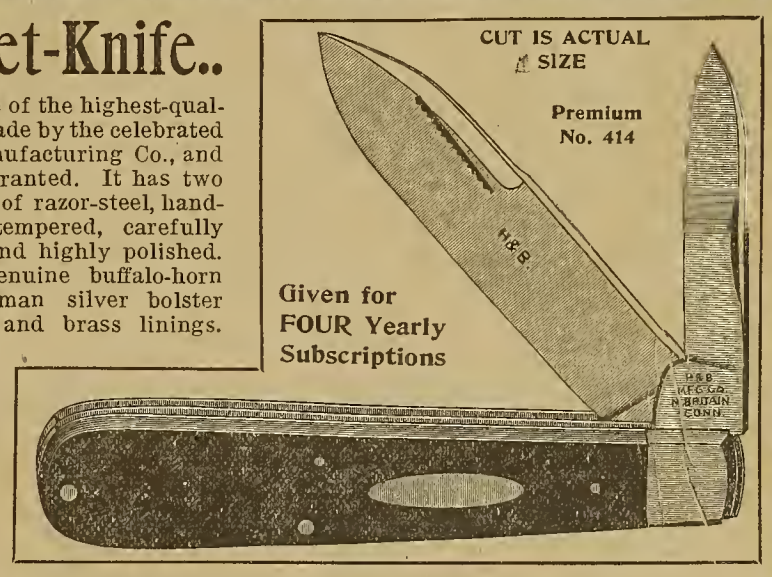
Sell them to your friends at ten cents each and then remit one dollar and twenty cents to us. We will then send you the magazine free for one year.

The Ideal Home Magazine Fifty-two pages, one of which is equal to four ordinary magazine pages. Stories by prominent writers, illustrated by prominent artists. Every cover a work of Art. Special attention to departments of great value to women.

If you are already one of our subscribers we will extend your subscription one year. We pay the postage.

THE CROWELL & KIRKPATRICK CO.
DEPARTMENT M, - - SPRINGFIELD, OHIO

Pocket-Knife..



This is one of the highest-quality knives made by the celebrated H. & B. Manufacturing Co., and is fully warranted. It has two blades made of razor-steel, hand-forged, oil-tempered, carefully sharpened and highly polished. It has a genuine buffalo-horn handle, German silver bolster and shield and brass linings. The knife is strong and made for service and usually sells for $1.00. It is well worth the price.

We Will Send the Farm and Fireside One Year and This Pocket-Knife for Only . . . **80 Cents**

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

Given as a Premium for FOUR Yearly Subscriptions to the Farm and Fireside

Address FARM AND FIRESIDE, Springfield, Ohio

SPECIAL 60-DAY OFFER To Introduce Our Latest Large, Powerful Achromatic Telescope, The Excelsior.

FACE TO FACE WITH THE MAN IN THE MOON!

NEEDED ON FARM, SEA OR RANCH.
POSITIVELY such a good Telescope was never sold for this price before. These Telescopes are made by one of the largest manufacturers of Europe, measure closed 12 inches and open over 3 1-2 feet in 5 sections. They are BRASS BOUND, BRASS SAFETY CAP on each end to exclude dust, etc., with POWERFUL LENSES, scientifically ground and adjusted. GUARANTEED BY THE MAKER. Heretofore, Telescopes of this size have been sold for from $5.00 to $8.00. Every sojourner in the country or at seaside resorts should certainly secure one of these instruments; and no farmer should be without one. Objects miles away are brought to view with astonishing clearness. Sent by mail or express, safely packed, prepaid, for only **99c.** Our new catalogue of Watches, etc., sent with each order. This is a grand offer and you should not miss it. We WARRANT each Telescope JUST AS REPRESENTED or money refunded. WANTS ANOTHER: Brandy, Va. Gents.—Please send another Telescope, money enclosed. Other was a bargain, good as instruments costing many times the money.—R. C. ALLEN. Send **99c.** by Registered Letter, Post-Office Money Order, Express Money Order or Bank Draft payable to our order, or have your storekeeper or newsdealer order for you. **EXCELSIOR IMPORTING COMPANY, Dept. G, 296 Broadway, NEW YORK.**

A FINE WATCH OR OPAL RING FREE

To get this Watch or beautiful Ring just send your name and address on postal and we will mail you 18 Scarf Pins to sell for 10 cents each. When sold, send us $1.80 and your choice of Premium, and we will mail it to you for your trouble.

Our Pins are all Stone and Pearl set, they are so pretty you can sell three or four to one person. Illustrated Catalogue with every package. We are reliable.

ANAWAN JEWELRY CO.
16 Main Street, . . . North Attleboro, Mass

BRAIN FOOD

Is of Little Benefit Unless It is Digested

Nearly every one will admit that as a nation we eat too much meat and too little of vegetables and the grains.

For business men, office men and clerks, and in fact every one engaged in sedentary or indoor occupations, grains, milk and vegetables are much more healthful.

Only men engaged in a severe outdoor manual labor can live on a heavy meat diet and continue in health.

As a general rule, meat once a day is sufficient for all classes of men, women and children, and grains, fruit and vegetables should constitute the bulk of food eaten.

But many of the most nutritious foods are difficult of digestion, and it is of no use to advise brain-workers to eat largely of grains and vegetables where the digestion is too weak to assimilate them properly.

It is always best to get the best results from our food, that some simple and harmless digestive should be taken after meals to assist the relaxed digestive organs, and several years' experience have proven Stuart's Dyspepsia Tablets to be a very safe, pleasant and effective digestive and a remedy which may be taken daily with the best results.

Stuart's Dyspepsia Tablets can hardly be called a patent medicine, as they do not act on the bowels nor any particular organ, but only on the food eaten. They supply what weak stomachs lack, pepsin diastase, and by stimulating the gastric glands increase the natural secretion of hydrochloric acid.

People who make a daily practice of taking one or two of Stuart's Dyspepsia Tablets after each meal are sure to have perfect digestion, which means perfect health.

There is no danger of forming an injurious habit, as the tablets contain absolutely nothing but natural digestives; cocaine, morphine and similar drugs have no place in a stomach medicine, and Stuart's Dyspepsia Tablets are certainly the best known and most popular of all stomach remedies.

Ask your druggist for a fifty-cent package of Stuart's Dyspepsia Tablets and after a week's use note the improvement in health, appetite and nervous energy.

EYESIGHT RESTORED

Failing Eyesight, Cataracts or Blindness Cured without the use of the knife.

Dr. W. O. Coffee, the noted eye specialist of Des Moines, Iowa, has perfected a mild treatment by which anyone suffering from failing eyesight, cataracts, blindness or any disease of the eyes can cure themselves at home. Judge George Edmunds, a leading attorney of Carthage, Ills., 79 years old, was cured of cataracts on both eyes. Mrs. Lucinda Hammond, Aurora, Neb., 77 years old, had cataracts on both eyes and Dr. Coffee's remedies restored her to perfect eyesight. If you are afflicted with any eye trouble write to Dr. Coffee and tell him all about it. He will then tell you just what he can do. He will also send you Free of charge his 80 page book, "The New System of Treating Diseases of the Eye." It is full of interesting and valuable information. All cures are permanent. Write to-day for yourself or friend to

W. O. COFFEE, M. D., 819 Good Block, Des Moines, Ia.

W. O. Coffee, M. D.

Two Rings Free!

We will give these Two **SOLID GOLD** laid Rings, one set with large Garnet and three Pearls, one with Ruby and two Brilliants, *FREE* to any one that will sell **12** of our **Gold Plate Enameled Brooches**, set with different colored stones at **10** cents each, and sends us the **$1.20**. No money required until brooches are sold. We take back all not sold. Address HOWARD MFG. CO., PROVIDENCE, R.I.

FASHIONS—Spring and Summer, 1901

Our new **Pattern Catalogue** showing the latest styles for spring and summer wear is now ready for distribution. Write for it. It is sent **FREE**. Address FARM AND FIRESIDE, Springfield, O.

LADIES *I Make Big Wages —AT HOME—* and you can readily do the same, for the work is pleasant and will easily pay $18 weekly. I have often made $5 a day. Even your spare time is valuable. This is no deception. I want no money and will gladly send full particulars to all sending 2c stamp. MRS. A. H. WIGGINS, Box 20, Benton Harbor, Mich.

Man Cleared $1182, Lady $920 last six months introducing Holladay's Black Marvel self-shining waterproof Shoe-Polish. Why not you? Free sample bottle and terms. Holladay & Co., 354, 188 Monroe St., Chicago

TRUSSES 65c UP Save one-half by writing for our FREE catalogue and prices. 30 kinds. We are manufacturers. Established 21 years. Perfect fit or money back. HENRY SCHROEDER, 462-469 Milwaukee Ave., Chicago.

LADIES TO DO PLAIN SEWING at home, $1.50 per day, four months' work guaranteed; send stamped addressed envelope for full particulars. R. W. HUTTON & CO., Dept. 87, Philadelphia, Pa.

CARDS Send 2c. stamp for new SAMPLE BOOK of all the FINEST Styles in Gold Beveled Edge, Hidden Name, Silk Fringe, Envelope and Calling Cards for 1901. We sell GENUINE CARDS, Not Trash. UNION CARD CO., Columbus, Ohio.

TAPE-WORM EXPELLED ALIVE. Head guaranteed; 2c. stamp for booklet Byron Field & Co. 152 State St. Chicago

PLAYS Best List of New Plays. 325 Nos. Dialogs, Speakers, Hand-Books. Catalog free. T. S. DENISON, Pub., Dept. 5, Chicago.

SPECTACLES at wholesale. Send for catalog. Agents wanted. COULTER OPTICAL CO. Chicago, Ill.

BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

CRAZY WORK SILK REMNANTS, enough for quilt, 50c. Large package handsome colors 10c. JERSEY SILK MILL, Box 32, JERSEY CITY, N. J.

TOO SOON

When poor Mis' James Bogmedders died
It was an awful shock ter Jim;
He jest sot down an' cried an' cried,
An' not a soul could comfort him.
She'd been a good an' faithful wife,
He moaned; so good an' kind an' true,
Thet now she'd passed out of his life
He didn't know what he should do.
Most every one turned out an' went
To 'tend the funeral thet day,
An' nearly everybody sent
A wreath or some kind of bokay.
The one Jim valued most of all
Wuz one his orphant children gave.
"We'll keep thet on the parlor wall,"
Sez he, "ter mind us of the grave
Where all we love most dearly dwells."
So thet wuz what they done with it.
'Twas jest a wreath of immortelles,
Across the top of which was writ,
"Too soon."

Well, Jim he useter grieve an' fret,
Ontil he got hisself real thin;
But after while we noticed thet
He gradual picked up.ag'in.
One day he told Si Peters, "Si,
I'm gittin' so disconsolate
I've got ter thinkin' mebbe I
Had better take another mate."
An', sure enough, come June he did,
Although it wuzn't half a year
Sence he had seen the coffin-lid
Shut over all he "held most dear."
An' in thet same old parlor where
The bran'-new bride an' Jim wuz wed
Still hung where all could see it there
Thet wreath of immortelles what read,
"Too soon."

—T. A. D., in Catholic Standard and Times.

THE GRIEVANCE OF AN AUTHORESS

THE lady story-writer towered in the doorway. "Perhaps you take me for a writer of patent-medicine advertising!" she sarcastically remarked to the startled editor.

"I think not, madam," he managed to reply. "What seems to be the difficulty?"

"Then you have not noticed it?" she cried.

He shook his uncombed locks.

"Listen!" she said, as she flung a glance of disdain at him. "The atrocity occurs in the chapter of my story where the American heiress discovers the perfidy of her spendthrift French husband.

This is the particular sentence: 'She paled with indignation, and, stooping, suddenly took a hill from the oblong box before her.' "

"Yes," said the editor. "Was there an error in the printed copy?"

"Error!" shrieked the authoress. "There are two of them! They are worse than errors—they are crimes! Listen! For 'indignation' you substituted 'indigestion,' and in place of 'hill' you printed 'pill!' "

And she gurgled in her throat as she swept from the room.—Cleveland Plain Dealer.

TOUGH LUCK

First horse-fly (humped up in the shade, watching the automobiles whizz by)—"By my troth, Cecilia, but it's hard times we've been seeing since those things came around."

Second horse-fly—"You may well say so, Horatio. Heaven knows it's hard to have to settle down as horseless flies!"—Judge.

TOO LATE

Assistant Attorney-General Beck says that Philadelphians are not so slow in the game of politics as New-Yorkers seem to think. He relates that a man who had rendered the party much service went to Governor Beaver, of Pennsylvania, and asked for a position as janitor in the state-house.

The governor said to him, "You are an excellent man, but the position is filled."

The politician, very disconsolate, wandered along the banks of the Susquehanna. He saw a body brought from the water, and to his surprise he saw that it was that of the man who had been appointed to the place that he wanted. He did not lose any time, but ran to the governor and said he wanted the place.

The governor replied, blandly, "There is no vacancy."

"But," says the applicant, "I saw that man taken out of the water!"

"Yes," replied Governor Beaver; "I have just appointed the man who saw him fall in!"—Judge.

AT THE OTHER END

A certain naval officer was very pompous and conceited when on duty. One day when he was officer of the watch and he could not, as usual, find anything of consequence to grumble about, he attempted to vent his spite on one of the stokers of the vessel, who was in the engine-room on duty.

Going to the speaking-tube the officer yelled, "Is there a blithering idiot at the end of this tube?"

The reply came quick and startling, "Not at this end, sir!"

The feelings of the officer as he turned away with a black frown can be better imagined than described.—London Spare Moments.

LEGAL COURTESY

An instance of that legal courtesy which is a synonym of congressional courtesy occurred in a Galesburg court-room. Attorney Jim McKenzie and a lawyer from East Galesburg became involved in a wordy discussion, in which each questioned the other's word. The East Galesburg legal light maintained his position, claiming that he could find his authority.

He turned over the pages of the statute-book, when, quick as a flash, Mac said, "You will find what you want on page ——, section ——."

The innocent attorney looked up the reference, and found the law governing the running loose of jackasses. And the court smiled.—Philadelphia Item.

AN IMPORTANT POINT

Mrs. Wildway (vivaciously)—"The late Mrs. Mallow was cremated, you know."

Mrs. Stare (absent-mindedly)—"Oh—ah—yes! What did she wear?"—Boston Transcript.

THE CRIMINAL POOR

Parson Primrose—"Don't you know, little boy, it's wrong to play base-ball on Sunday?"

Freddy—"Yes, sir; but our club ain't got the money to run golf-links!"—Puck.

LITERALLY

The man looked up and saw "Exit" on the door. "Well," he mused, "that lets me out."—Syracuse Herald.

POTASH

No crop can be grown without Potash. Supply *enough* Potash and your profits will be large; without Potash your crop will be "scrubby."

Our books, telling about composition of fertilizers best adapted for all crops, are *free* to all farmers.

GERMAN KALI WORKS
93 Nassau St., New York

ALLEN'S FOOT-EASE

A Powder for the Feet.

Shake into your Shoes

Allen's Foot-Ease, **a powder for the feet.** It cures painful, swollen, smarting, nervous feet and instantly takes the sting out of corns and bunions. **It's the greatest comfort discovery of the age.** Allen's Foot-Ease makes tight-fitting or new shoes feel easy. It is a certain cure for ingrowing nails, sweating, callous and hot, tired, aching feet. We have over 30,000 testimonials. **TRY IT TO-DAY.** Sold by all Druggists and Shoe Stores, 25c. **Do not accept an imitation.** Sent by mail for 25c. in stamps.

"Oh, What Rest and Comfort!"

FREE TRIAL PACKAGE sent by mail. Address ALLEN S. OLMSTED, Le Roy, N. Y.

HOME-SEEKERS EXCURSIONS

On the first and third Tuesdays of each month the Chicago, Milwaukee & St. Paul Railway will sell round-trip excursion tickets from Chicago, Milwaukee and other points on its line to a great many points in South Dakota, North Dakota and other Western and Northwestern States at about one fare. Take a trip West and see the wonderful crops and what an amount of good land can be purchased for a little money. Further information as to rates, routes, prices of farm lands, etc., may be obtained by addressing C. C. Mordough, Traveling Passenger Agent, 12 Carew Building, Cincinnati, Ohio.

FREE DO YOU WANT A WATCH that runs & keeps good time This watch has a SOLID GOLD laid case, handsome dial dust proof, adjusted to position, patent escapement, and highly finished. This is a remarkable watch. We guarantee it, and with proper care it should wear and give satisfaction for 20 years. It has the appearance of a SOLID GOLD one. The watch is accompanied with a 20 YEAR GUARANTEE. The cases are beautifully made by the most skilled workmen. The movement is an AMERICAN STYLE, expansion balance, quick train, and you can rely upon it that when you own one of these truly handsome watches, you will at all times have the correct time in your possession. Do you want a watch of this character? If so, now is your opportunity to secure one. WE GIVE IT FREE as a premium to anyone for selling 18 pieces of our handsome jewelry, for 10c. each; (each set with an exquisite jewel). Regular price 25c. each. Simply send your name and address and we will send you the 18 pieces of jewelry postpaid. When sold send us the $1.80, and we will send you the handsome watch. We trust you and will take back all you cannot sell. We propose to give away these watches simply to advertise our business. No catch-words in this advertisement. We mean just what we say and allow a cash commission if preferred. You require no capital while working for us. Address, SAFE WATCH CO., P. O. Box 180, New York.

BEAUTIFUL DIAMOND RING FREE

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No. 3807.—MISSES' FIVE-GORED SKIRT. 11 cents. Sizes, 10, 12, 14 and 16 years.

No. 3805.—HOUSE-GOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

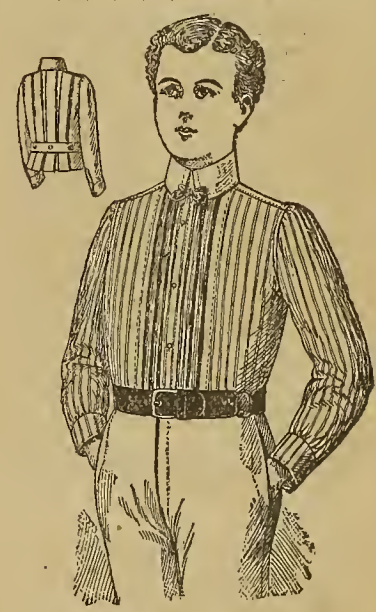
No. 3703.—MISSES' PEASANT WAIST. 10 cents. Sizes, 12, 14 and 16 years.

No. 3808.—SQUARE-YOKE NIGHTGOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3797.—SUNBONNETS. 10 cents. Small, medium and large.

No. 3620.—GIRLS' DRESS. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.

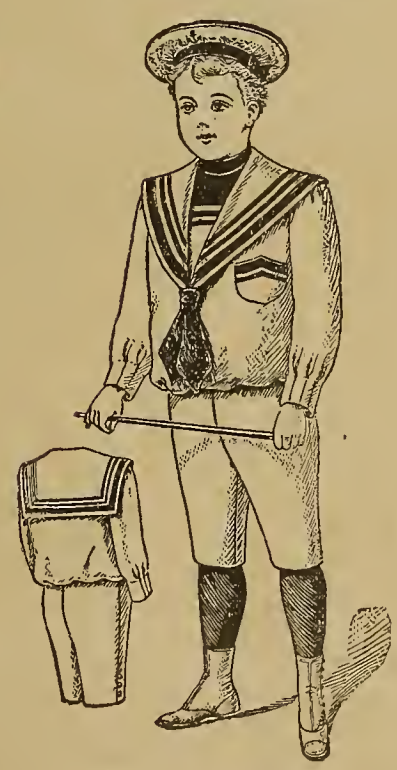
No. 3809.—TUCKED SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 3733.—BOYS' SHIRT-WAIST. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.

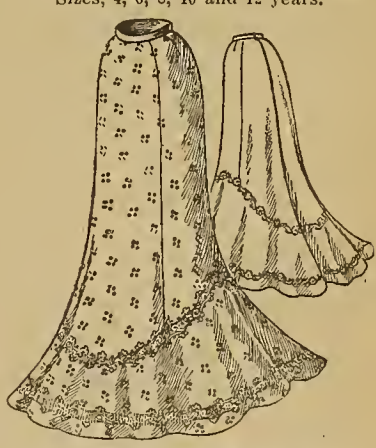
No. 3718.—BREAKFAST-JACKET. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.

No. 3785.—FANCY WAIST, WITH BERTHA. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 3617.—BOYS' BLOUSE SUIT. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.

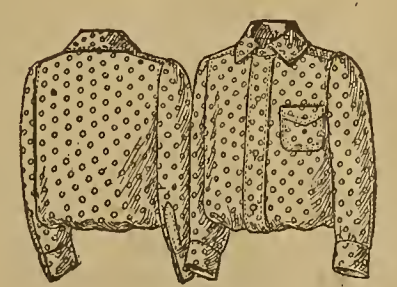
No. 3748.—SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



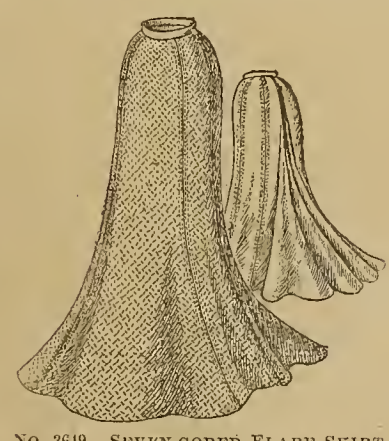
No. 3773.—FIVE-GORED SKIRT. 11 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.

No. 3765.—MORNING-GOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

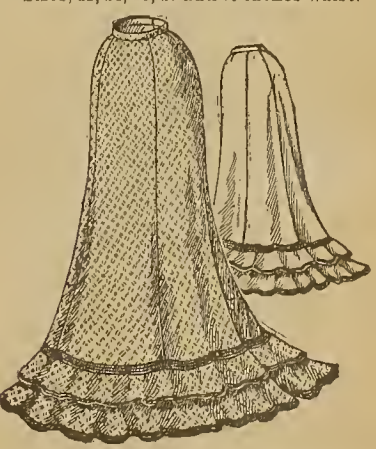
No. 3646.—RUSSIAN BLOUSE. 10 cents. Sizes, 12, 14 and 16 years.



No. 3752.—BOYS' BLOUSE. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.



No. 3649.—SEVEN-GORED FLARE SKIRT. 11 cents. Sizes, 22, 24, 26, 28, 30 and 32 inches waist.



No. 3723.—FIVE-GORED SKIRT. 11 cents. Sizes, 22, 24, 26, 28, 30 and 32 inches waist.

FARM SELECTIONS

BROOM-CORN

"MC," OF Belmont, Ohio, asks in "National Stockman and Farmer" of February 2d for information as to how to grow broom-corn for home use. Our method has been to plant it in drills or light furrows about four feet apart and plant a liberal amount of seed. Then when the plants are some six inches high we thin them out, so as to leave one plant every six or eight inches in the row. We cultivate same as field-corn, and have had no trouble growing it on land that would produce good corn. We plant at corn-planting time usually a few short rows in the corn-field. It should not be planted near a patch or field of sorghum-cane, as the two will mix and render both worthless. We frequently carry a supply of seed when working corn and replant any missing hills with broom-corn. This can usually be gathered at corn-cutting without much extra work, and the stalks shocked with the corn. They are valuable to tie fodder with at corn-husking. We like to cut the broom-corn as soon as the brush makes its growth, as it gets too brittle if left till too ripe. Our local broom-maker told us it was not necessary to break the brush down while growing, but I really think it best to break it down as the brush grows nice and straight. I would prefer to break it when the brushes are about half grown.—S. W. Burlingame, in the National Stockman and Farmer.

THE MAN WITH THE SHEARS

In an illustrated article showing how Champion Marquis shears a sheep with a hand-power machine the "American Sheep-Breeder" says: "Mr. R. M. Marquis has for several years held the fast shearing record, both for hand and machine shearing. Last June, at Bowers Bros'. ranch, near Martinsdale, Montana, he broke his own as well as all other records by shearing 360 seven-pound wethers in fourteen hours and forty-six minutes, taking off 2,650 pounds of wool—a truly marvelous performance and one not likely to be equaled for some time to come. . . .

"Mr. Marquis has shorn in the past eight years at the most prominent machine and hand shearing stations in America. He has shorn 200 and over in one day as many as twenty times, twice over 300, and once 360. His average day's work in Montana ran from 175 to 215—this in days of nine and ten hours. In one shearing season, not including fall work, he sheared 17,103 sheep."

PREVENTION OF POTATO-SCAB

Seed-potatoes are disinfected either by soaking for one and one half hours in a solution of one ounce of corrosive sublimate in seven gallons of water or by soaking for two hours in a solution made by diluting one half pint of formalin in fifteen gallons of water. —Bulletin of Vermont Experiment Station.

RECENT PUBLICATIONS

CATALOGUES RECEIVED

Deering Harvester Co., Chicago, Ill. Handsome catalogue illustrating and describing in detail the new Deering corn-binder.

The Lawn Sundries Co., South Bend, Ind. Descriptive circular of lawn-seed, fertilizers, sprinklers, and hose couplers and menders.

Aultman, Miller & Co., Akron, Ohio. Illustrated catalogue of Buckeye binders, side and center draft mowers, corn-harvesters, hay-rakes, etc.

James Vick's Sons, Rochester, N. Y. Vick's Little Gem catalogue—a neat, illustrated, condensed price-list of seeds, plants, small fruits, bulbs, etc.

BOOKS NOTICED

THE BURRO BOOK. An interesting collection of sixty-four half-tones showing the patient, cheerful, philosophical burro as worker and playmate in various fields of activity and repose. Price 25 cents. Published by S. M. McCandless, 113 West Seventh Street, Pueblo, Colorado.

THE CHILDHOOD OF JI-SHIB, THE OJIBWA, AND SIXTY-FOUR PEN-SKETCHES. By Albert Ernest Jenks, Ph. A unique and artistic work, scientifically accurate in text and illustration, and an entertaining story of Indian child-life. Price $1. Published by "The American Thresherman," Madison, Wis.

MODERN BLACKSMITHING, RATIONAL HORSE-SHOEING AND WAGON-MAKING; with rules, tables and receipts, useful to manufacturers, machinists, well-drillers, engineers, liverymen, blacksmiths, wagon-makers, horseshoers, farmers, amateurs, etc. By J. G. Holmstrom. Cloth-bound. 202 pages. Illustrated. Published by Alhambra Book Company, Chicago, Ill.

FACTS ABOUT POTATO-SCAB

It is a skin disease, known wherever potatoes are grown.

It does not affect the eating quality of the tubers, but may cause them to rot quicker.

The disease spreads from one tuber to another by means of germs or spores. Vast numbers of these are left in the soil after the crop.

The germs do not move or "crawl" in the soil, nor do they grow "spontaneously." They can only be added to the soil on scabby seed. Manure from animals fed on scabby seed is not likely to be dangerous.

The germs may live in the soil for five or six years.

Heavy soils are favorable to scab. The germs do not thrive in a sour or acid soil.

A green crop plowed in just before planting will check the scab. So will acid fertilizers.

Stable manure, wood ashes and lime are likely to increase the scab by giving it a better chance to develop.

Some varieties are more liable to it than others. In general the round, rough-skinned varieties are less likely to be attacked.

To prevent it, plant on soil that is free from the germs, and kill those on the seed-potatoes. Plowing under a green crop may keep the germs inactive, but will not kill them. It is not wise to follow a scabby potato crop with potatoes.

To disinfect the seed-potatoes soak them in some solution that will kill the scab-germs, yet not injure the sprouts. Corrosive sublimate or bichloride of mercury will do this. Dissolve an ounce of this chemical in a gallon of water. Then add water enough to make seven gallons. Keep it in a wooden vessel and soak the potatoes in it for ninety minutes. Then cut and plant. We like formalin or formaldehyde better. This is a liquid. One half pint is mixed with fifteen gallons of water. It readily dissolves. Soak the potatoes for two hours, and cut soon after soaking.

Exposing the tubers to sunlight for several weeks before planting will destroy many scab-germs and make the sprouts thick and strong.

A new way of killing the scab-germs is to fumigate them with formaldehyde-gas. This is done by putting the tubers in a tight box and burning tablets of chemical in an alcohol-lamp. The fumes work all through the box among the tubers.—Rural New-Yorker.

PASTURES FOR SHEEP

If I were forced to make a choice of a single pasture for sheep blue-grass would be chosen. Blue-grass pastures sufficiently extensive may be made to sustain sheep during the principal portion of the year where they are properly managed. When they are so managed the grass will in the main be kept grazed down somewhat short. This can be done by alternating in the pasturing. Sheep prefer grass short and sweet to grass long and coarse. When, however, sheep are to be grazed largely on supplemental pastures, then alternating in grass pastures is not so necessary. The latter are as much a necessity to give sheep a roaming-ground as to provide them with food. But there are two seasons of the year when sheep should have long rather than short grass pastures—that is to say, in the late fall and early spring. They will eat such pasture at the seasons named, and it will be more healthful for them than if it were short. Especially is this true in the spring, when the sheep are first turned out, as such grass does not purge them as short new grass would. The importance of such pastures is wholly underestimated.

In blue-grass pastures white clover should always grow. All the white clover that grows in a blue-grass pasture is clear, distinctive gain. It adds that much to the value of the pasture, as it is probable that it helps the blue-grass more by feeding it than it hurts by crowding. When this little bosom friend of blue-grass is absent it ought to be sown. While all other kinds of grass will be eaten greedily by sheep in the early stages of their growth, no grass outside of blue-grass is probably so useful in providing pasture for sheep as Bromus inermis. This comparison does not include clovers. The new-comer has not been tried long enough to demonstrate its exact value in providing pasture for sheep; but since it is ready for grazing a couple of weeks earlier in spring than blue-grass, since it also grows longer and keeps green later, since the cold of winter cannot kill it nor the heat and drought of summer, and since it will grow better on light land than blue-grass, it is worthy of the careful attention of the flock-master. —Prof. Thos. Shaw, in American Sheep-Breeder.

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The American Burro* By Joel Shomaker

THE burro is a small Mexican donkey that runs wild on the plains of Arizona, New Mexico and Texas, and is very often domesticated and made the play-horse for children or the pack-animal for man. He is an innocent-appearing, sleepy-headed little fellow, with long ears, a short body and slim legs, and is about the size of a Shetland pony. One animal will carry two hundred pounds easily over the most dangerous mountain trail, and a train of thirty or more will follow, carrying packs of equal or greater burdens. They feed upon the country, even though nothing is visible but sage-brush, and when in the forest delight in peeling the bark from trees, even climbing ten feet or more among the limbs to get the bark. Because of great powers of endurance they are useful in crossing the deserts or climbing the mountains, as they can live many days without water and on very scanty food.

A mining outfit is never complete without a few faithful burros. The prospectors call in their burros when the larder is about empty and start for the nearest depot of supplies. The leader, or madrina, as the Mexicans term the godmother, has a small bell hanging to her neck, and wherever she goes the others follow the tinkling of the bell. When the miner reaches town and enters a store the entire burro train stops and awaits his return. They have small pack-saddles, made of wood, on which are strapped the various bags of flour and provisions. Equal weights are strapped on either side and the animals are ready to move. The miner leads the way, generally with staff and pipe, and the whole band follows. Over high mountains, across rapid rivers, through deep gorges and everywhere, regardless of dangers, the treasure-seeker leads his pack-animals. The packs are removed from the burros when a camp is made, and placed upon each animal as before when ready to start again.

During the long winter days, when the miner's camp is covered with snow, and there is no food in sight, the burro will clear a road to the hut and get inside whenever the door opens. A piece of bread, some fried potatoes, or anything that man eats, satisfies the hunger of his assistant. The common flapjack, or pancake, made by the camper is relished by the burro, and he will make a meal upon this at any time when grass is not obtainable. If a bear, mountain-lion or other wild animal approaches the camp the burro will rush to the cabin and bray in a frightened and alarming manner. The hunter or miner familiar with burros will quickly detect fear or pleasure in the braying, and act accordingly. When his master is absent and returns home the burro will proceed to give a long, gratifying bray, indicative of pleasure because of his return. As the daylight begins to peep over the high mountains, after a lonely, cold or troubled night, the burro will give a bray of pleasure and run to the camp to tell the news.

The value of a burro depends largely upon the work he is expected to perform. They sell at from one dollar to twenty dollars each, varying with conditions and degree of usefulness. Cow-boys use the animals for transferring tents, provisions and camp equipments from one herding-ground to another. When the work is finished they drive the animals away to some valley, usually several miles from camp, to get rid of them, and never look for them again until their services are demanded. Farmers often purchase them for use about the farm, and many are found around small cities and pleasure resorts, for the use of children, who ride and drive them whenever and wherever they choose. A burro never runs away, but at times refuses to move at all, leaving the rider with no choice but to walk.

Indians have a legend that the animals are enemies of the red men, and the same idea seems to prevail among the burros. When one scents an Indian, possibly hundreds of yards away, he will throw his ears forward, look in the direction of his foe, and bray as if very much frightened. The noise frightens an Indian, because of his superstition, and he usually turns in the opposite direction. Many a lone miner has been saved from robbery and scalping by hostile Indians by the frightful wail of his friend the burro. When friendly Indians and cow-boys trade together the red men always watch the burros very carefully, and never get near their heels. If the animal is struck with a lariat, as the Indians do with their ponies, he refuses to move another step, and will frequently kick at every one approaching him.

Many pioneers of the Southwest have been compelled to eat burros for sustaining life. They report the meat as very coarse and sweet, like that of a bear. The canners of horse-flesh for export do not use the burro, but purchase wild range-horses. In some sections of Arizona the burros are so troublesome to ranchers that they have to be shot or poisoned the same as rabbits, to prevent their destroying orchards and crops. If not killed or injured by accident the animals live for many years. Men familiar with them claim to have seen miners' pack-animals whose ages could be traced over a quarter of a century. They are often killed by the mountain-lion, and sometimes bears have been known to feast upon burros when other meats were scarce. Indians frequently eat the flesh and feed it to their dogs to

[CONCLUDED ON PAGE 5 OF THIS ISSUE]

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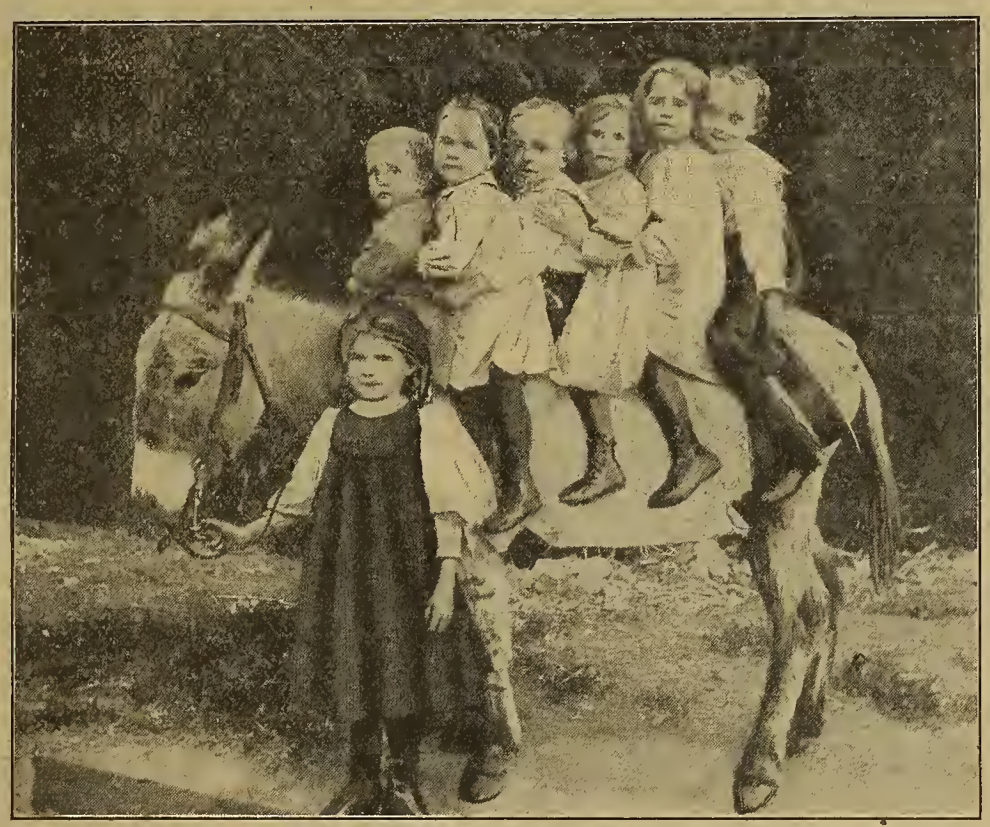
CHUMS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AN ARIZONA PROSPECTING PARTY

ORE-CARRIERS

FARM AND FIRESIDE

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We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

WITH THE VANGUARD

IN A recent address at Boston to the members of the Home Market Club Vice-President Theodore Roosevelt said:

"In dealing with our new duties abroad we must approach them in the same spirit necessary for the solution of the problems that confront us at home.

"Whether we are glad or sorry that this new work has been allotted to us is a matter of small moment compared with the purpose with which we approach the work.

"It is, of course, impossible that we should undertake these new duties across the seas without being brought into closer and more frequent contact with foreign nations than has been the case in the past, and, indeed, our mere growth in wealth and population would alone insure such growing frequency of contact. This should necessarily mean an increase in sobriety and long-headed self-restraining when we deal with these foreign powers. To bluster, and above all to bluster and then back down, is a very bad trait in an individual, and, if possible, it is an even worse trait in a nation. We earnestly hope and believe that in the near future the chance of any military complication will be small indeed, but in our commercial relations with foreign powers difficult questions are almost certain to be more frequent hereafter than they have been hitherto. In all such questions we must, of course, first consider our own interests, but we must also realize that in the long run we can best get justice by doing justice.

"Since the close of the war with Spain our chief problems, as regards the outside world, have been those in Cuba, the Philippines and China. We have a right to feel proud of the day in which, in our action as regards all three, we have been able to combine a proper disinterestedness with a just regard for our own national interest.

"In Cuba we were pledged to bring peace and freedom and independence to the island, and we have been resolutely bent upon keeping that pledge, not merely in the letter, but in the spirit. To have driven out the Spaniards and then immediately withdrawn our forces would have meant the breaking of our own pledge, for it would have thrown the island into a chaos but one degree better than the tyranny which it succeeded. Moreover, such a course would have meant the absolute certainty of our being speedily forced to interfere again. We would commit a grave wrong to our own people if we permitted the great island which is our neighbor once more to become a plague spot of civilization, a still graver wrong if we permitted the possibility of its ever being used against us by some strong alien power. Our business was to help in the development of those qualities in the Cubans which would render them able to solve the difficult problem of self-government, to further every movement for decency in the island, and to give our aid to the new Cuban commonwealth as it strove to walk alone.

"Perhaps few better tests of our worth as a nation have ever been offered than the Philippine problem. The temptation was great to shirk it altogether. Such a course would have appealed not only to many thoroughly honest and excellent people who were imperfectly informed, or who were misled by false analogies or by sentimental considerations, but it would also have been greeted with enthusiasm by all short-sighted people and by all in whom the legitimate dislike of needless effort and worry tends to become an unhealthy fear of all risk and trouble. But as we look back we can now see that the national duty was really plain. We could not give the islands back to Spain; we could not see them taken by some other European power; and least of all could we turn them over to be scrambled for by insurgent leaders, most of whom were but little above the level of banditti, and the success of any of whom meant destruction to the peaceful and law-abiding portion of the islanders and a more or less swift relapse into barbarism of the entire population. The first thing to be done was to restore order by putting a stop to the insurrection. This has at last been practically accomplished in a succession of campaigns which have brought out into bold relief the daring, the skill and the indomitable resolution of our officers and men. The campaigns have been wearing and difficult beyond description, both because of the nature of the country and of the character of our opponents. After the first few months the insurgents ceased to oppose us in regular warfare, their methods becoming more and more such as by any stern application of the laws of war would have forfeited their right to be treated otherwise than as assassins.

"In developing these islands it is well to keep steadily in mind that business is one of the great levers of civilization. It is immensely to the interest of the people of the islands that their resources should be developed, and therefore it is to their interests, even more than to ours, that our citizens should develop their industries.

"Now, in conclusion, let me ask you to judge the future by the past. Look back over the last three years and see what we have done. Think how infinitely better off Cuba and the Philippines are because of the policy upon which this republic has acted. Mankind is our debtor for what we have done, and the doing of it has raised our national character to a higher standard than ever before. We have made mistakes, of course—let us profit by them and avoid them hereafter; but at home and abroad let us continue on the course we have marked out. We talk much, and on the whole we talk truly, of the future greatness of our people. Let us see to it that our deeds make good our words, that we take advantage of our manifold opportunities, and do without flinching our manifold duties. We are not to be excused if we fail to do all that is required of a great nation standing as one of the great powers of the earth, and least of all are we to be excused if we fail to keep in mind the principles that underlie all real greatness—the principles of justice and of mercy, of courage and of honesty—that go to make up a national record of clean living and true manliness."

IN THE "World's Work" for May Mr. Walter E. Andrews gives a very interesting account of "Actual Rural Independence." His actual instance is Mr. Russell, a farmer in one of the central states, who owns eighty acres of land and makes a specialty of dairying and fruit-raising. For three hundred dollars a year cash and the use of a neat tenant-house he hires a good man and wife. An electric-car line gives direct transportation to a creamery and canning-factory and to a good market town four miles away.

"Five o'clock in the morning," says Mr. Andrews, "whir-r, whir-r goes an automatic electric alarm in the tenant-house. The hired man gets up and hurries to the big barn. He feeds and grooms the cows and cleans out the stalls. Then the proprietor arrives in time to help at the milking. Both men wash their hands and put on clean white duck suits used only when they milk.

"The milk goes to a neat milk-room adjoining the barn, and is fed into a centrifugal cream-separator operated by electric power derived from the trolley-line. A touch on the lever and the little motor hums merrily. Almost before you know it the separator has whirled all the cream out of the fresh milk into the shipping-cans, while the skim-milk, still warm and appetizing, is ready for feeding to calves and pigs.

"The filled cream-cans are hooked to a wire carrier, which spins them, by force of gravity, direct to the trolley platform on the road. In a few minutes a trolley-car comes along with a freight-car attached, stops at the platform, takes the cans on board and then whirls away with them to the creamery. The freight charges are but a few cents (which are collected weekly), and the empty cans are returned later in the day free of charge. Mr. Russell is credited by the creamery with so much cream, and on settlement-day receives a check in payment.

"Thus the milking is done and the cream is on its way to market before Mrs. Russell is out of bed. She does not have to bother with 'setting' the milk in pans or with ripening and churning the cream. She is no longer a slave to milk-pans and churns, and the old, unsatisfactory way of 'trading out' butter at a local grocery-store is done away with. Butter or cream now means cash."

Then the article describes concisely the scientific way the cows are fed and cared for, and the modern way of doing nearly all the farm-work with horses and machinery. It tells how the fruit-trees are systematically sprayed with compressed-air-power machines, and how the fruit is graded, packed, and shipped by trolley-car direct to its destination—canning-factory, steamboat-dock or commission-man.

"There is a telephone," continues the article, "in the barn and both houses, connecting the farm with town and neighbors. Mr. Russell, like any other merchant, has an 'office' of his own at his place of business—the farm. He takes one or two daily newspapers, which reach him promptly by rural-mail carrier, and he keeps constantly informed on market conditions. Every day he telephones to his commission-man, or to private customers, or to the canning-factory, and he makes definite arrangements about shipments and sales. . . . He keeps a simple set of books, and he knows at the end of each year just how he stands. He works hard, but not in the way his father worked. He directs the machinery, whereas his father was the machinery itself; he farms with brains instead of hands; he rides a good saddle-horse about his place, whereas his father was ridden by his work.

"Now take a look into the snug farm-house, and what do you see? There are new books and magazines, pictures and dainty furnishings. There is a piano in the parlor and a bicycle or two on the back porch. Everything looks comfortable, cozy and attractive, without attempt at style or show. The chairs are intended to sit upon, and the old haircloth sofa is now a genuine lounging-place.

"In winter the house is heated by a hot-water furnace in the cellar, and ventilation is insured by open fireplaces. In the kitchen there is a modern range, and in the cellar you will find a refrigerator. Electric-lights are everywhere—in the house, on the porch, in the barn. The trolley-line furnishes the current, of course. Thanks to windmill and tank, good water is on tap wherever needed, hot or cold.

"The boys and girls of the family attend the high school in the town, the trolley-line making a special school rate of two cents for the round trip. Church and entertainments are liberally patronized, for modern farm-life—thanks to the trolley—is no longer isolated. . . . Do the boys and girls leave this sort of farm? No! They compare their home comforts and their parents' successful, peaceful life with what they see in the town, and are contented."

THE ON-LOOKER

THE parson was passing into the post-office as I was coming out, and my greeting was, "How are you to-day, Brother X——?" "That is an unfair question," was the reply. "Years ago an old minister asked me that question, and my truthful statement was that I felt badly, had a headache and a pain in my chest. 'Keep it dark,' was the rejoinder. 'If you would get close enough to your people to help them, hide your troubles.' I have found that my old brother in the ministry knew whereof he spoke, and so what right have you to put a question concerning a private matter that I may wish very much to keep in concealment?"

It did occur to me that my clerical friend had taken quite a little time replying to my greeting, but as usual I saw that he had improved it well. We like to meet bright, smiling people, and the one that appreciates the pleasure of being welcomed heartily must choose between that pleasure and the tempting one of pouring his troubles into every available ear. He has no right to expect both of these pleasures. The second would gladly go with the first, but is destructive of it. The parson has no choice. In his calling it is essential that he have a welcoming hand and ear from his parishioners. Hence, he must "keep dark" about his troubles. We laymen have a choice.

Most people have troubles of their own. It is part of the business of life to have them. They temper us down and help to make us bearable to our fellows; not in their telling, but in their bearing. The telling and sharing with others destroy their potency for good, even causing them to minister to our bumptiousness instead of being the corrective they were created to be; the bearing with reasonable cheerfulness mellows and refines and keeps us within the proper bounds.

The farmer is peculiarly dependent upon the weather, and the weather is a fickle thing if judged by small sections. In the long run, however, it is more dependable than the favor of constituents, clients or customers. There is reason always to fear some lack in the income wanted, but there is no earthly cause for the daily expression of apprehension that the season must prove a failure. Inventory the probabilities as they are, but "keep dark" about that part which would check the smile of a welcoming friend.

In many years of farming I have forecasted each month the probable income of the year. It is a unique system of book-keeping, with actual assets and "probabilities" inventoried together. I do not mention the plan to commend it, though it does serve my purpose, one that is not exacting, but the scheme of accounts discloses the hopes and fears of the season as the months roll along. A late spring, a midsummer drought, many things depress, but it is a noteworthy fact that the unpromising years are often the most profitable ones. Profitable in cash, I mean; in spirit and in comfort to my wife they certainly were not till I learned that an early, bright spring might mean loss, and a drought often brought a price that made more than amends for shortage. "Ah, then," says our reader, "you make others bear your troubles!" No! A wife does not count as other folk. She is part of one's self, or vice versa, and her mission is to share sorrows and joys. But even then there is no excuse for undue dwelling upon the ills of life, and we live to learn to live above the commonest of them.

In early life I borrowed many troubles. It came about by mapping life ahead, very much as in that system of book-keeping, which is the one decent relic of a bad habit of thought, and in the map were pin-holes, where troubles of certain sizes and shapes were to be faced, as I supposed. But it is my experience that those particular troubles failed to materialize. Others came—yes, in plenty—but they were not the ones scheduled to arrive. The time used in mapping misfortune is worse than wasted. But not so with the good fortunes we can see ahead. They have a distinct value even when they wholly elude our grasp. They make hopeful folk, and a hopeful fellow gets his money's worth out of life. He is a difficult antagonist, but a pretty sure winner.

O—L.

ABOUT RURAL AFFAIRS

Exposition Notes Big expositions are like some marriage ventures—all is anticipation, joy, honey, intoxication at first, and bad feeling and disappointment afterward. Chicago, I believe, came to realize that there are penalties connected with the temporary greatness of an exposition city. And yet people are always willing to run the risk. We well remember the stubborn fight between New York and Chicago in 1891 or 1892 trying to secure the World's Fair. Almost everybody wants to try the marriage lottery, and everybody living in a locality that can get an exposition is glad enough to secure the advantages of the presence without thought or fear of the ills of the future. We all glory in the possession of the great fair, and hope that history will make an exception in our case and let us escape the penalties usually attached to it. The first effect of the coming exposition to be seen for twenty miles around seems to be pleasing, but it costs money. Every place liable to be touched by the line of travel is trying to get in shape to show off to the best advantage. Cities and villages prepare for expending more money for streets, lighting and "slicking up" generally than ever before. Tax-rates around here will be comparatively high. But private people are doing even more in that line. They expect to have all their friends call on them some time this summer, and consequently there is a tendency to get ready for visitors. Carpenters, paper-hangers, painters, etc., are kept busy. Every house is being overhauled and fixed up, extra rooms are fitted up with beds to accommodate guests, etc.

This activity also extends over the yards, gardens, orchards. The lawns receive better care; gardens are made earlier, larger, better; trees, many of them neglected for years, are given a thorough trimming, and the land the long-delayed culture. A good thing, you will say. Yes, it's a good thing for our working-men, for they not only find work every day, but at greatly increased pay. We used to pay day-hands $1.25 a day; now we can hardly get a man at $1.50 a day, and we will surely have to give them $1.75 or see the Niagara Falls mills secure the labor of every man in the vicinity. It is a good thing for the merchants. The working-men have plenty of money to spend. They are in shape to live better and to buy more groceries and clothing. And what a lot of money is being spent for paint and wall-paper and carpets and other house-furnishings just now. We all are putting our houses in holiday attire. We buy new carriages, new harnesses, new boats, possibly new pianos. All this involves the expenditure of a lot of money over and above the ordinary amounts. Then comes the entertainment of visitors and a generally increased cost of living. On the other hand, the gardener and fruit-grower in the vicinity may also expect to see his revenues materially increased, for his products will meet a ready demand at greatly increased prices. In short, the money will change hands very rapidly and plenty of it will be in general circulation. That is the way things look to-day. What will they be "after the dance?"

Autos for Farmers That there will be a wonderful exhibit of automobiles at the Pan-American admits of no doubt. It is likely that in it there will also be one of these self-moving vehicles that is of particular interest to farmers. A man in Colorado, so the reports say, has invented an automobile to be operated by gasolene or electricity adapted to do plowing, seed-sowing, cultivatiug and harvesting. Who would have predicted fifteen years ago that in 1900 we were to see all our street-cars run without horses? Who will venture to dispute the possibility that in 1910 we will do all our cultivating in potato-fields, corn-fields, gardens, etc., by steam or electric power and without horses? I believe it is more than probable that such will be the case.

Protection to Birds I am under obligations to some unknown friend who sends me occasionally copies of literature published by the Audubon Society of the state of Ohio. This society was organized in December, 1898, for the very purpose of bird-study and bird-protection. With the last pamphlet I received a clipping from a Cincinnati paper containing a reference to an address by Joseph W. Culbertson on "the economic value of birds." The speaker, among other things, regretted the wholesale destruction by ruthless hunters of the quail, which is "the only bird that keeps in check the chinch-bug and Hessian fly, the great pests of the wheat-field." From the pamphlet itself I quote the following paragraph:

"As part of their food the sparrows pick the worms, insects and eggs from the under side of and pending from the leaves of trees and plants. In saying sparrows, reference is not only made to the kind most commonly known and most numerous—namely, the English sparrow, as to the usefulness of which there exists a great diversity of opinion—but especially attention is called to our endless varieties of American sparrows, which are among the most useful insect and weed-seed destroyers, such as the song-sparrow, whose cheerful note is heard almost the whole year round, the vesper-sparrow, the tree, the field and the chipping sparrow; at a distance these can scarcely be distinguished from the English sparrow. Now, when a boy in a cowardly manner shies a stone or levels a Flobert rifle at a bird, he is but too ready to say it is only a sparrow! Alas! he does not know what an industrious, well-meaning little friend he may be killing."

During the past week I have seen some nearly grown-up boys sneaking around my evergreen hedges and wind-breaks, leveling their murderous shot-guns at every bird that comes within range—and there is a law in this state forbidding the destruction of song-birds, too. We must try to put a stop to this wholesale murder.

Planting for Birds It is true that many of our most beautiful birds—the robins, cedar-birds, etc.—often rob us of a good share of cherries and berries. But we can well afford to do a little planting purposely for the birds, and I believe that on the whole it is far more profitable to feed them than to fight them. The following is another paragraph from the same pamphlet:

"Birds like wild fruit better than cultivated. It is their natural food. Farmers should have growing about their fields June-berry, mulberry, wild cherry, elder, viburnum and mountain-ash and their cultivated fruit would not be sought. The planting of evergreen trees should also be encouraged, as they provide shelter for birds in winter."

A few mulberry-trees are especially useful for the purpose of attracting birds and keeping them away from cultivated fruits. The fruiting season of the mulberry lasts during a large portion of the summer, and the fruit is a favorite dish with birds. Personally I am fond of good mulberries myself. While the Russian varieties may do very well for birds, and are exceedingly productive, I like to have a tree or so of Downing's Everbearing or of American for my own eating. The latter with their large leaves are quite ornamental, too, having a somewhat tropical aspect. But they are a little tender at the extreme North, and should be planted under the protection of a building, shelter belt or in some other favorable location. June-berries are useful for both birds and the table.

A New Spraying Liquid Saccharate of copper is now being mentioned as a competitor of Bordeaux mixture. The latter, strange to say, was simply a chance discovery, and the receipt has never been materially improved upon since its first make-up. The formula for the new liquid is as follows:

"For twenty-five gallons of the spraying liquid slake and make into 'milk of lime' four pounds of quicklime; dissolve four pounds of molasses in one gallon of water and mix with the milk of lime. This will make a solution of 'saccharate of lime.' Stir thoroughly, and let stand for a few hours. Next dissolve four pounds of bluestone in eight or ten gallons of water, and pour into it the lime-molasses solution while stirring briskly. The mixture becomes very turbid with the gypsum formed, which may be allowed to settle, leaving a clear, greenish solution of 'saccharate of copper,' which may be drawn off from the sediment, thus obviating all danger of clogging the spray-nozzle and leaving no discoloration on leaves or fruit. If it is to be used on leafless trees it may be at once thinned down to the twenty-five gallons wanted, since even thus the liquid is much thinner than the Bordeaux mixture of equal strength."

I showed this receipt to Dr. Van Slyke and other chemists. None could give me any definite information about it, but Dr. Van Slyke says that "it looks all right; try it." And so I must try it. It may prove of value.

T. GREINER.

SALIENT FARM NOTES

Rural Free Delivery of Mail It is stirring up the American farmer as he has never before been stirred. He is becoming a business man as well as a soil-tiller, and it is only a question of time, and a very short time at that, when he will emancipate himself from the prejudices, narrowness and other "country peculiarities" which have characterized him from time immemorial. He is rising and learning, and instead of toiling from dawn to dark, like a beast of burden, following in the old rut made by his forefathers, he is reading, inquiring, studying, experimenting and improving his methods, and it is plainly evident that he is beginning to make two blades of grass grow where one grew before. Furthermore, the "signs of the times" indicate that he will not much longer consent to be taxed on the right hand and on the left for the benefit of officials who make laws and methods of procedure as complex as possible in order to mystify him and compel him to pay them an exorbitant price for doing what any intelligent man should be able to do without assistance. As I note the rapid advance of agriculture and the swift passing of the slave life of the farmer I often wish I was again young, so that I might enjoy in its entirety the great advantages and broader life that have come to him. But there is some satisfaction in knowing that one has lived in the period of transition from the old to the new, and done all he could to bring it about.

Good Roads For several years I was an earnest advocate of hard roads, and believed that the best interests of the farmer demanded them, but I have to a considerable extent changed my mind. For over a year I have been watching a real up-to-date "road-keeper" care for about eight miles of common black-earth road, and to say he has done good work would be putting it mildly. I am now well satisfied that if our common earth roads are properly and thoroughly cared for—if they are well built at the right time and repairs are made promptly—there is no necessity whatever for going to the enormous expense of building hard roads except in limited districts. In due time the trolley will come into the West, as it already has into many portions of the East, and in most sections long hauls of farm produce will soon be a thing of the past. Where the materials for making hard roads are cheap and near by they can be built at reasonable cost; but when they are distant and must be freighted it is nonsense to talk about building them. It would be far better to adopt the methods of the "road-keeper" mentioned above.

His district lies in a black-soil section, where rain quickly converts soil into mud. He has learned that where the grade is tile-drained and rounded so that the water quickly flows off, the road is easily kept in good condition. The first thing done was to provide good drainage; after that to keep the grade well rounded and the ruts filled by the use of the road-hone. As soon after a rain as the grade is dry enough the hone is run over it and the surface made perfectly smooth. At the edges of bridges and culverts, where are often found ugly "drop-offs" and deep ruts when the roads are not properly cared for, he dug out the soil to a depth of about eighteen inches and filled in with broken brick and tile, covering them with cinders, and there the road is as solid as a rock. To place one man in charge of the roads of a township or district would remove the burden and bother of road-tinkering off the farmers, and most of them could, by attending to their crops at the season when road-work should be done, make many times more than they could save by tinkering on the roads. The idea of working a road into fair condition one week and letting it go to ruin the rest of the year is utter foolishness, and the sooner a change is made the better. The reading, thinking farmer knows this and he is patiently waiting for the leaven to work among his neighbors. Agitation for costly hard roads and a great burden of debt has served to intensify the opposition to reasonable schemes for road improvement. The best thing we can do till the trolley comes, and after it comes, is to adopt the "road-keeper's" system—pay steady, skillful men a salary to build our roads in the best manner with the material at hand, and then keep them up the year round. If this is done we will have, even in the black-soil districts, very good roads nine or ten months of the year, and they would be passable the other two months, while the cost would in the end be much less than the present overseer-poll-tax-everybody-work foolishness.

FRED GRUNDY.

Sharples "Tubular" FARM Cream Separators.

If no agent will bring you a Sharples Separator, we will loan you one for trial free of cost. Though hundreds of our latest have gone on trial, not one has been returned. The truth is, they give more butter than any other separator, enough to pay big interest on the whole first cost, and they turn much easier (former capacity doubled with less driving power) and are entirely simple, safe and durable.

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Other agents will try and draw comparisons between their new machines and our old ones, but don't let them. Have a trial of a "Tubular" Dairy Separator, they are double the money's worth. Free book "Business Dairying" and catalogue No. 112.

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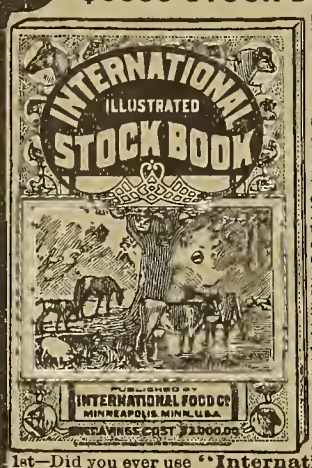

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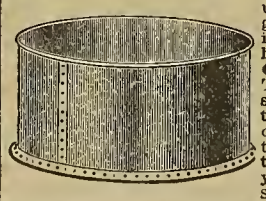

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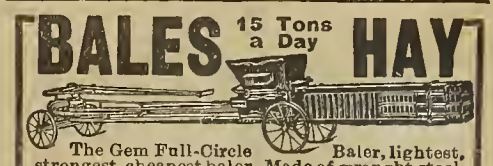

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OUR FARM

FARM THEORY AND PRACTICE

A Practical Experiment.—Bulletin No. 68 of the Maryland Experiment Station should be in the hands of every thoughtful farmer. I do not say this because the results of their soil experiments would prove true for all soils, or even the majority of soils, but because these experiments are based upon some fundamental truths that all farmers need to know, and because these truths are plainly stated. For many years I have realized that nature had means of making plant-food available for her plants, and that so-called soil-poverty was usually only such a derangement of natural conditions by man that nature could not perform her normal work. In season, and probably out of season, I have insisted that an abundance of organic matter in the soil meant fertility; that nature restores abandoned land of fair, natural strength to a state of productiveness by continued growth of wild plants, and that humus is the prime factor in a rational sense of maintaining soil fertility. That this view is scientific as well as practical is evidenced by the bulletin, from which I quote some statements.

Phosphates.—Before taking np the plan of the experiments this bulletin calls our attention to the fact that the essential element in the phosphates so freely used, and, we might add, the most important one in fertilizers for nearly all soils, is phosphorus. It is stored in all agricultural soils, being in the form of phosphate. In the same form it is stored in bones, phosphatic rock, etc., from which commercial fertilizer is made. In the soil and in the bones, rock, etc., it is in a form that plants cannot use until chemical changes take place. An acid must be brought into contact with it. For treatment of phosphatic rock, bone, etc., sulphuric acid is usually used by the manufacturer simply because it is more effective than other acids. It makes the food element available for the plants. Other acids would do the work, but less easily and cheaply. In the soil there are tons of insoluble phosphoric acid in every acre of good land, and if acid were brought into contact with it some of it should, in all reason, be made available, just as it is made available in a fertilizer by treatment with sulphuric acid.

Plan of the Experiment.—The bulletin says: "The general idea that pervaded the plan was to imitate nature and get the land as nearly as possible in the same condition it was when a virgin soil, and then continue to use nature's methods for maintaining fertility. It is well known from chemical analysis of soils that they contain sufficient phosphoric acid to furnish all that is needed for good crops for many years. It has also been shown that some soils which fail to produce satisfactory crops contain more phosphoric acid than those that are considered fertile. Now, this difference in fertility must be due to a condition of availability. An examination of the conditions which prevailed in virgin soils, or in any soil that has just been cleared of its forest growth, soon makes prominent the fact that nature has filled that soil with organic matter. This organic matter not only gives the soil a dark color and fine physical appearance, but it also performs functions in producing chemical changes that cannot take place in that same soil were it destitute of organic matter. Again we find that a virgin soil will produce satisfactory crops for a number of years without the intervention of commercial fertilizers; but about as soon as the organic matter has been worked out the soil fails to produce satisfactory crops and the use of phosphates is resorted to."

Using Organic Acids.—We farmers know that some soils are easily "soured" by having a green crop plowed down in midsummer. That is to say, acids are produced in the decay of green matter in the soil, and the soil may be of such a nature that too much acid for the good of a cultivated crop can be produced in this way. Experience teaches each of us about how far we can go along this line without getting a harmful excess of acid for the crops we grow. Some acid is always needed to join with the bases in the soil. This occurs whenever a sod is broken or whenever the roots of the plants decay.

The station's experiment consisted, in part, in a comparison of the value of this acid with the value of ordinary sulphuric acid in making phosphates available to plants. On some plants it used phosphate that had been treated with sulphuric acid—the usual form of this fertilizer—and on others it used insoluble phosphates, such as raw rock, trusting to organic acids in soils that had green crops rotting in them to make the phosphates available for plants.

The Results.—The station obtained remarkable results. The phosphates untreated with sulphuric acid, which are much cheaper than others because they do not have to be manipnlated by the manufacturer after being ground fine, gave better results upon corn than the more costly acidulated goods. The soil that was used in these experiments had enough organic acid in it to do the work of making the phosphate available, and the costly treatment with sulphuric acid was unnecessary. In the case of wheat, which needed the food at once before the soil acids could prepare it for the plants, the more soluble form of phosphate gave better results. But taking all the crops for five years there was no gain from having the phosphates made available before application. In most of our soils I believe we shall find that acidulated phosphates will pay best, because we need the food to give the plants a good start, and then our soils probably contain less organic acid as a result of our abuse of them; but these experiments do emphasize the ability of soils to help themselves when we give nature a chance, and we can now see how possible it is to free plant-food in the soil by plowing under sods and manurial crops freely.

Our Conclusion.—Do not let us jump at the conclusion that we may abandon acidulated phosphates and use the cheaper insoluble ones. Nature has the ability of making the insoluble element available when she is provided with decaying organic material, but on our own farms this may not be done quickly enough for the crop we plant. Beyond a doubt this is true for most soils that are being seeded to wheat and grass. We shall want to continue the use of treated fertilizers, though more experimentation should be done with the insoluble phosphates. But we should see the folly of keeping tons of inert phosphoric acid stored in every acre of that land that would yield up fertility to our plants if we provided the vegetable matter to the soil that would make this available. Then less commercial fertilizer would be needed. It is irrational to continue to buy chemical plant-food without providing means for releasing some of that which lies inert in the ground. Humus is the foundation-stone in maintaining the productiveness of our land. David.

A MODERN DAIRY-BARN

In former years the main use of the truss was in bridge-building; now its use is very common in roofing large buildings and in erecting self-supporting buildings—that is, structures whose floors are carried by strong wrought-iron rods that pass through the chord of the truss, thus placing the weight of the floor and contents upon the outside walls.

As will also be seen from the accompanying cut, all the posts in the basement are done away with, and the posts and beams on the first floor are less than in any other mode of construction.

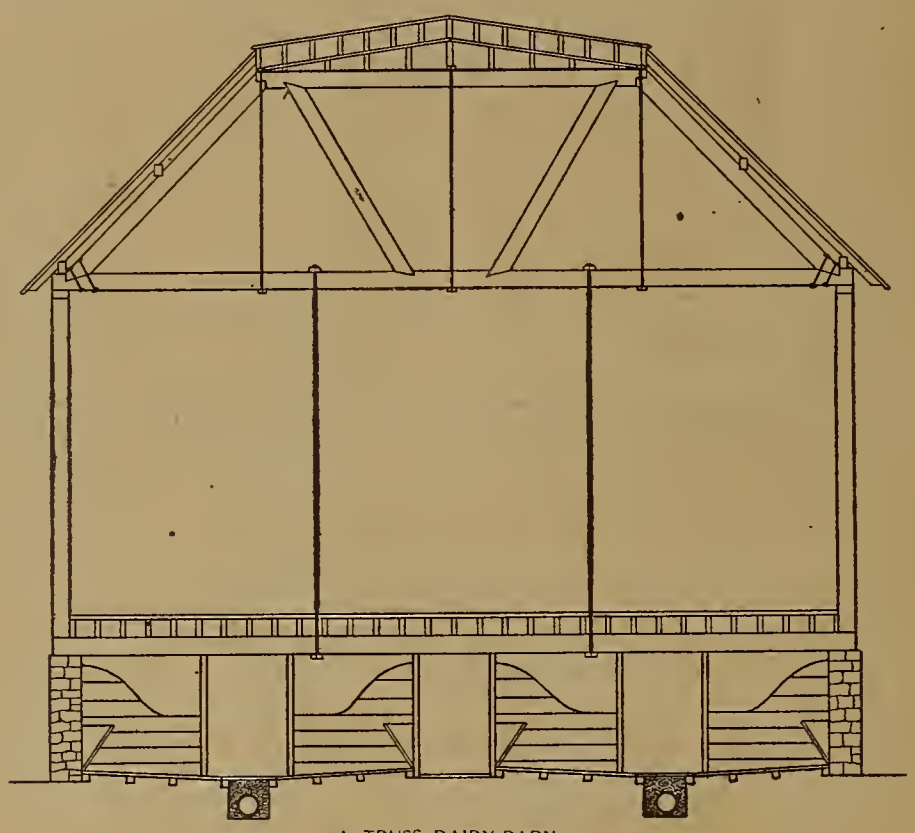
The cut shows the cross-section of a bank-barn forty-five by sixty feet, twenty feet high to the eaves, with a half-pitch Mansard roof fifteen feet high and forming a deck twenty-one by sixty feet.

The barn has a displacement of eighty-two thousand two hundred cubic feet, which is equivalent to about one hundred and sixty tons of hay. It has a first floor of twenty-seven hundred square feet, with only six one-and-three-fourths-inch wrought-iron rods passing from the three trusses through the floor to the beams which support the joist.

The trusses require ten-by-ten-inch yellow pine for chord, straining-beam and principal rafters, with six-by-ten-inch for braces. The truss-rods should be of wrought-iron capable of sustaining a tensile strain of ten thousand pounds to the square inch. As the strain on one truss may be forty-four thousand four hundred pounds, it will require three one-and-one-half-inch rods in truss which are capable of sustaining forty-five thousand pounds; also four one-inch foot-bolts to hold heel of rafter in place.

The deck is formed of two-by-six-inch studding on straining-beam eighteen inches high at the center and receding to nothing at the ends, double plating same, and upon this two-by-eight-inch joist are placed sixteen inches on centers, to receive sheathing.

The posts are of ten-by-ten-inch yellow pine, with a six-by-ten-inch plate, and girders of four-by-six-inch spaced at a convenient distance for weather-boarding. The first floor is formed of ten-by-ten-inch beams placed underneath trusses, through which pass one-and-three-fourths-inch wrought-iron rods (upset to two inches). Upon these beams are placed two-by-ten-inch joist spaced twelve inches on centers, and on this a two-inch matched floor is laid.



A TRUSS DAIRY-BARN

The basement will contain about twenty-four hundred square feet, which will accommodate about forty-five cows by dividing the width in four rows, allowing seven feet for each row of stalls, and three alleys, the center one being a four-foot feed-alley; the other two are five feet in width, for the cows to go to and from stalls. The stalls are made by bedding four pieces of four-by-four-inch oak, with two inches fall toward drain; upon these are placed two-inch oak plank. At the end of the plank a channel is dug so as to have a fall of two feet in sixty feet; in this is laid a six-inch drain-tile and the channel is filled with coarse gravel. The sides of the stall are formed by having two four-by-four-inch oak posts rabbeted three fourths of an inch by one and three fourths inches; in this is slipped one-and-three-fourths-by-six-inch grooved and tongued plank well driven together with oak cap; upon this, back about three feet six inches, is a half-circle, from which is run one-half-inch iron rods.

The foundation wall should have a concrete footing three feet wide and two feet deep, and upon this is built an eighteen-inch stone wall. Clate B. Clinton.

THE SECRET OF THE CORN-PLANT

Really it is no secret at all except the secret of careful work. Let me tell you how one man raises it and you will see that what I say is true. The man of whom I am speaking goes about his work something as follows:

He plows up a strip of ground upon which there is something of a turf left. Some of us make the mistake of waiting until the last vestige of plant life has disappeared before we think it worth while to plow. This man believes that the better the turf when he plows, the better may be his crop of corn. Having determined where to put his corn for the season, he waits until almost time to plant and then hurries the manure out. He has an old-fashioned idea that the sunshine and the rains will cause the ammonia and other valuable elements in the manure-heap to evaporate if it be allowed to lie exposed to the weather very long. For the same reason he keeps the manure carefully housed under the shed until needed. He gives his land a thorough coating of this rich barn-yard manure, holding that nothing equals that for bringing a good crop. At least twenty loads of manure are spread upon each acre.

As soon as this is done he follows with the plow. What! plow the manure under? Surely that is contrary to the usual practice. Yes; but this is the way the man we are writing about argues. If spread on the top of the ground the manure will not be where the roots of the corn-plant can reach it; and the object of putting on the manure is to help the corn. If plowed under the fertilizer lies in the earth until the long roots of the corn-plant get down to it; and, by the way, do you know how long the roots of a stalk of corn are? Next summer just notice that.

When the manure is out and plowed under this man sets the harrow to work, and he harrows his ground until it is "like an ash-heap." Not all of us are as thorough about this as we should be for our own good. A mellow bed for the seed to lie in is a great start toward future success.

Now follows the planter. Previous care has been taken in selecting the seed. The time has gone by now to discuss that. If he has been troubled in the past by the "century-living" crow he fixes his corn by dropping say a small teaspoonful of gas-tar in one half bushel of seed, stirring it well in and then sifting a handful of land-plaster over the measure, also stirring that in, so that the kernels will readily run through the planter.

This done, the man sits down and waits for nature to work. In a few days the rows will begin to show. Then is the time to put on all the hen-manure possible. Rob every hen-roost on the farm. The good wife will bear you out in it, and your own conscience will say, "Well done." If you have been wise you will have saved every spoonful of this rich fertilizer made on the place; and if you can induce any of your neighbors to sell what they have accumulated, by all means do it. Nothing is better for the corn than hen-manure. Scatter the manure along between the rows near the corn-plants. I do not like to have it really touch the stalks, for it is hot stuff and may burn the tender leaves.

The man now turns the horse and hired man into the corn-field and tells them to stick to it as long as a weed remains or the soil needs stirring. There is a knack about cultivating corn. I have seen men cultivating when it seemed to me they might almost as well sit on the fence. They did not seem to care whether the teeth of the cultivator came anywhere near the corn-hill or not. If they only "went through" the rows that was all that was expected. Now, I don't think they are right, and neither does "the man." If I am not careful I shall give away another secret! I want the teeth of the cultivator to get right up to the row of corn. It is the corn we are cultivating, not the ground in the middle of the row. By turning the cultivator slightly one may bring it close up to the hills and stir the soil all around them as well as root out the weeds. That is the kind of cultivating which pays. If the wheel-cultivator is used, set it so that the teeth will run close to the corn, then drive carefully.

From this time on the only secret about the corn-plant is that of old Mother Nature, and she will tell none of us just how she works. We know she gathers tons of moisture from the sky and the dews; that we can help her by keeping the soil stirred until the stalks are so large that we break them by driving between the rows; that all we can do now is to wait patiently for the harvest, feeling sure that we shall not be disappointed if we have done our work well. If we have not, we ought not to expect much of a crop.

This is my secret—no, the secret of the man who rarely fails of having a good crop of corn! Edgar L. Vincent.

THE AMERICAN BURRO

[CONTINUED FROM PAGE 1]

make them more watchful and give them greater powers of endurance.

Many rich mines have been located by the prospectors watching the burros when camping in the mountains. There is a general superstition among the prospectors of the Southwest that these animals are familiar with the characteristics of a location containing hidden treasures, and their actions are supposed to indicate the spot where the ore is buried. In several instances where old ruins of mounds, walls and gold-fields of the Aztecs are visible the burros are found feeding around, thus giving rise to the suspicion that they are acquainted with the lost mines of the Spaniards, who carried away so much gold from Arizona and New Mexico centuries ago. One old miner claims to have found a nugget of gold weighing almost one ounce by following his burro to a deserted Spanish mine. Frequently the burros have been known to break off chunks of galena from the craggy cliffs and make a joyful sound on discovering the metal. Old trails over the mountains are often found by turning burros loose and allowing them to find their own way.

Burros are very friendly, and agree with the dogs about camp. They always look with suspicion upon strangers, but when their master recognizes his friends the burros will be sociable. They will walk up to a camp and lay their heads over the men's shoulders and beg for bread. If several bands belonging to different people are turned into one field or corral to feed, each band will follow its madrina when she is taken away. Unless carefully watched mountain-lions, coyotes and bears kill the burro colts, and a herd does not increase very fast. A burro cannot be lost from his band except by being forcibly detained, as they follow by scent, the same as a hound. The winds blow furiously over the sandy deserts of the Southwest, and all signs of a trail are obliterated within a few minutes, causing men to get lost. If one man is delayed in traveling with a company he can always find his way by holding back a burro from the train, which will follow. As one of the civilizing agents of the West the burro is entitled to great credit, and receives such from those who know him best.

FARM SEPARATORS IN CREAMERY-WORK

The creamery business, like every other, is in the course of evolution. No man can say that this, that or the other system has come to stay, for the question is constantly an economic one. The great ruling principle of modern business life is to guard against waste, and right here and nowhere else will this question, whether the milk shall be separated on the farm or at the creamery, finally come for practical solution.

The man of all others whose interests are chiefly concerned in creamery-work is the patron, and he is about the last to take any real vital interest or make any intelligent discussion in the matter.

So it happened that at the recent meeting of the Creamery-Butter Makers' Association at St. Paul, where this question of farm separators in creamery-work came up, the patrons' side of it had to be presented and defended by an operator, Mr. F. B. Fullmer.

Mr. Fullmer advocated the farm-separator system mainly on the ground of the greater economy in transportation of cream over milk to the creamery, and more than all for the greatly increased value of the skim-milk to the farmer when fed sweet twice a day fresh from the separator.

Every patron should take rigid care to thoroughly clean out the separator-bowl and all utensils immediately after separating, or else foul cream will surely result.

The fresh skim-milk is worth at least double to the pigs and calves than is the ordinary skim-milk of the creamery. Even if creamery skim-milk is pasteurized it is not so good, for by that very process it is rendered less digestible than fresh milk would be.

Hand-separated cream and whole milk can be handled at the same creamery if the cream is of the right consistency so its value can be measured by the Babcock test. The cream should not be run too thin from the farm separator.

In regard to so-called dilution-separators, with which so many farmers who do not read have been humbugged, Mr. Fullmer said the only way to prove their expensiveness to such farmers was to show up the loss of butter-fat in the skim-milk. He thought that those creameries that receive cream from hand-separators pay more in the end for butter-fat at the farmer's door than he would receive for it if it was delivered in the form of whole milk.

A Kansas delegate announced that the farm separator was growing in popularity in his state every year. The question whether such cream made first-class butter was fairly answered in the fact that the first-prize Kansas butter at that convention, which scored ninety-seven and one half, was made where fifteen per cent of the cream came from farm separators.

It was also maintained that the farm separator was a very valuable means of dairy education to the farmer. It puts him on the road to better thinking and practice. The testimony was clear that patrons who have farm separators take better care of their cows than do others who do not have them.

The "Dairyman" believes that the farm separator or any other agency will prove a blessing and of great profit if it will stir up the average creamery patron to a sense of what he doesn't know about his business of dairy-farming. The most contented among them are those whose practice is the worst. Then, again, the natural effect of the creamery is to make the patron indifferent and careless unless special effort is made to be otherwise. So in that direction the farm separator may prove a blessing.—Hoard's Dairyman.

CORRESPONDENCE

FROM MICHIGAN.—There are three large beet-sugar factories in Bay County. Their combined production last season was probably twenty-one million pounds of the very finest quality of granulated sugar. They help the farmer, but the advance in labor knocked the enthusiasm out of some growers. O. J. R.

Essexville, Mich.

FROM KANSAS.—Woodson County is one of the best hay, stock and general-farming counties in eastern Kansas. Good land can be bought for from $5 to $20 an acre. If any of your readers are thinking of changing locations it will pay them to look at this country before locating.

Keck, Kan. J. M.

FROM MISSOURI.—Monroe County is a beautiful country. Last year we raised fine crops of corn, oats and grass. Stock of all kinds brings high prices; hogs are $5.75 and cattle from $4 to $5 a hundredweight, while horses are in good demand. Land sells at from $15 to $30 an acre, and rents at from $2 to $2.50 an acre.

Madison, Mo. I. K. P.

FROM TENNESSEE.—We had a mild winter—no snow at all, and not a day that it was frozen too hard to plow. We have rural free delivery and rural telephone lines connecting us with all parts of the county and with surrounding towns and cities, so we feel that we are not so far behind the rest of the world. Our lands are doing well. The wheat and oats are fine. E. L. G.

Loudon, Tenn.

FROM COLORADO.—I live on a stock-ranch of about two thousand acres, on the Butte River, in Prowers County. On this river have been found coal, gold and silver, and the water is as clear as crystal. The two Butte mountains are on this creek. Stock roam at large the year round, and are fatter here on buffalo-grass than cattle in the East which are housed and fed six months out of the twelve. This is, without a doubt, a stock paradise. The Butte River is about twenty-five miles from Lamar, a busy little city. We have a daily mail here, so we always get your welcome paper on time. W. C.

Lamar, Colorado.

FROM OKLAHOMA.—I have lived in Oklahoma six years, and think as an all-around good farming country it cannot be surpassed anywhere in the United States. The wheat crop for 1900 was 30,680,000 bushels; the cotton and corn crops were correspondingly large, while the fruit, melon, peanut, castor-bean and other side crops made an excellent showing. Stock-raising is also a paying industry. Alfalfa, which is superior to red clover, does well on the bottoms. There has been quite an influx of land-buyers, and a good many quarter-sections have changed hands at prices varying from $1,800 to $5,000; bottom farms, well improved, readily bring the latter price. E. R. A.

Guthrie, Okla.

FROM ARKANSAS.—Fourteen years ago I did not own a foot of land nor a hoof of stock, and I was in debt forty dollars. I bought a place on credit, and got a young horse to break for its work. Now I am about out of debt and have a good house and fair log barn, sixty acres of land under good fence and six acres in fine orchard, one hundred head of sheep, thirty hogs, thirteen cattle, a good team and wagon, and am in good health. I have not spent five dollars for medicine during the fourteen years. We are in the midst of good society, handy to good railroad town and in the very heart of the finest stock-range; this range is free, and all kinds of stock do well on it. This country is mostly hilly and rocky, yet we have some excellent bottom-land. We can raise everything we need for feed and to eat. The climate is very good and exceedingly healthful. Fruit does well. Spring River, flowing from the mammoth spring of the world, is beautiful to look upon, but the spring itself is a wonderful sight. All the streams are clear as crystal. S. B. S.

King's Mills, Ark.

FORAGE CROPS FOR SHEEP

The forage crops other than grasses that have been found the most helpful in supplementing grass pastures at our station are five. These are winter rye, oats and barley, rape, corn and sorghum. They are named in the order in which they are ready for being pastured in the spring, or at least in which they may be made to come in. Other crops are of considerable use for such a purpose, but they are not so useful relatively as those named.

Winter rye has never received the full measure of recognition that is due it in providing pasture for sheep, and for the reason that its merits have never been sufficiently well known. Do flock-masters realize that this plant can be grown without hindering the growing of another crop the same season? Do they realize that its power to furnish most excellent pasture fall and spring is very great? And do they realize that its benefits cost only what plowing the land and the seed are worth? The greatest value of this plant is in the spring, since it is ready so early. It is earlier than bluegrass, even earlier than Bromus inermis; and then think of its value for producing milk for the nourishment of young lambs. The method of growing rye cannot be discussed in this paper, nor indeed the method of growing any of the crops named.

Oats and barley sown early in the spring will be ready for pasturing about the time that rye pasture fails; that is to say, about the last week in May. Especially will this be true if the crop is grown on fall-plowed land; that is to say, in areas in which it is the wise thing to plow land in the fall. This mixture is recommended not because it provides better pasture than peas and oats, but because pea-seed is expensive. Peas break down easier, also, than either of the other grains when grazed; hence, they answer better for being grown in a mixed crop to provide fodder than to provide mixed pasture. Barley and oats mixed make delightful pasture through June and the first half of July. It is well to graze them where it can be done in such a way that the grazing shall be done at two different periods with an interval between. The food will then be more relished and more abundant.

Rape may be sown so as to have its growth about completed during the last half of June. It will then furnish grazing during the interval between the first and second grazings of the peas and oats, and, as everybody now knows, by arranging properly the successive periods of sowing the flock-master may have rape to help him out from the time mentioned; that is to say, the last half of June to the advent of winter.

The next grazing crop ready will be corn. If planted early enough it will be ready as early as rape, or nearly as early; and by sowing it later it may be made to furnish pasture at later periods. It is questionable if corn pasture will ever be greatly popular where the farmer can furnish abundant rape pasture. The latter is about as productive, and it is more palatable and nutritious. But the point aimed at here is to show that corn may be made to provide good pasture for sheep, and at a time when grass pastures have been put to sleep for the time being by the suns of midsummer.

Sorghum will be ready just after corn. It will usually be ready for grazing about July 1st in Northern latitudes when planted just after corn. In some seasons it will be ready later—not before say the middle of July. This plant will always be valuable in providing pasture for sheep during the hot season, because of the power which it has to grow at that time. It is not so palatable as rape, but it is far ahead of dead grass in midsummer, and still further ahead of no grass other than grass-roots, on which sheep are sometimes made to glean a living at that season. Since sorghum grows up again and again during the season it may be made to furnish a large amount of pasture from a given area. To get the maximum of benefit, however, from a crop of sorghum sown for pasture the seed should be planted reasonably early, so that it may have the full season of growth before it. Corn and sorghum will be more valuable relatively for sheep in dry areas not highly favorable to the growth of grasses than in the Northern states.—Prof. Thomas Shaw, in American Sheep Breeder.

WHO SHALL MIX FERTILIZERS?

A man has a pain in his knee, and finds that by rubbing a certain liniment on it the pain is relieved. The next week he has a headache, and remembering his knee he rubs the same liniment on his head. The pain gets worse instead of better, and the man denounces the liniment as a fraud. He does not realize that the trouble in his head may come from his stomach. The liniment helped his knee, but failed to help his head; therefore, it is a fraud. You see this man fails to recognize that there were two kinds of aches, each requiring a different treatment. He is like the man who uses a "phosphate" or some one-sided fertilizer, and obtains good results on a certain crop. He tries it on another crop or soil and fails; therefore, all fertilizers are frauds. A friend once used two hundred pounds to the acre of nitrate of soda on wheat in the spring and increased his yield quite a little. The next year he decided to use only nitrate on his potatoes, which were planted on a soil quite deficient in potash. He got a large growth of vines, but few potatoes. He said that nitrate of soda, and incidentally all fertilizers, were "no good." A fair amount of potash used with the nitrate would have doubled his yield, but he would not go down to the true causes of his failure. Such men make a mistake in attempting to mix their own fertilizers or to use special substances. They will do much better to buy the mixed goods and always select complete mixtures. Generally speaking it will pay a farmer to hire experts to mix or plan for him, unless he is willing to think and study down to the basic principles that underlie his work. The soil may have four aches, requiring nitrogen, potash, phosphoric acid or lime to cure them. Unless you know which particular ache your farm has you would better use all four.—Rural New-Yorker.

CULTIVATION OF RAPE

D. E. P., Tangier, Ind., writes: "What is the proper time to sow rape? How much seed to the acre? To what kind of ground is it best suited? Will it grow well on a clay soil?"

The time of sowing rape should be determined largely by the season that it is desired to use it. As a rule it should be sown about two months before it is expected to be used. When sown early it is ready for use in June. It is possible to cut it and use it for soiling then, and if cultivated a few times afterward it will sprout and become fit for feeding in another month if the season is at all favorable. More feed may be obtained from it in this way than any other that I know of, as in Wisconsin we have secured as many as three crops by cutting it about four inches from the ground and then cultivating it. To use it in this way it is best to sow it in rows about thirty inches apart, using about two pounds of seed to the acre. As a rule I think this is the most satisfactory way of planting it, as this allows of a couple of cultivations, which will materially help the crop if the season is dry.

For fall feeding it may be sown in oats, but likely the most satisfactory method of using this crop for fall feed is to broadcast it in the corn-field at the time of the last cultivation. Of course, there are chances that this will be a failure, but very often it yields an abundant supply of feed. About three pounds of seed to the acre will be sufficient. Rape seems to prefer soil that has much vegetable mold, or humus, in it. Being a very gross feeder the soil can hardly be too rich for it. To lessen the chances of it being destroyed by plant-lice or suffering from drought, it is advisable to richly dress the ground to be used for this crop, or else use a piece that has much natural fertility in it. The plan that does well on ground not naturally rich enough is to put well-rotted manure in the furrows, plowing the ground, and then split the furrows back from the manure, roll, and sow the seed on top of the manure. When sown this way the rape will prove very drought-resisting.—John A. Craig, in Breeder's Gazette.

FIGHTING NATURE WITH SHOT-GUNS

There has never, in the writer's recollection, been a more favorable winter for the preservation and reproduction of flies, mosquitoes and every other pest that the farmers have to encounter and contend with than the present. Therefore these few lines—not as a prophecy, but as a warning.

I was out in the fields some ten miles from town last week, and saw farmers sowing oats while fourteen-year-old boys were following droves of blackbirds with guns over the adjacent farms, keeping them constantly on the move, so that they could not eat up any of the grain. I noticed these birds when left undisturbed were industriously scratching for the chrysalis of the cotton-worm left on deposit last fall.

Oh, when will our farmers learn to use nature's laws and protect themselves from their natural foes, whether human or insectivora, in nature's manner?—Texas Farm and Ranch.

NOTES FROM GARDEN AND FIELD

CONDUCTED BY T. GREINER

THE EARLY GARDEN.—Never was my soil in much better condition for work than just before the last storm, and my readers may well believe that I tried to make the most of the opportunity. And when the weather reports announced the coming of the storm I worked in feverish haste and anxiety to do as much as possible toward the finish of the first planting. A few rows of early potatoes (Early Ohios, of course) and a good-sized patch of peas (Alaska, Nott's Excelsior, Horsford's Market Garden, Telephone, etc.) were put in first. After that I drilled in some beets (Eclipse), radishes of the early turnip-rooted varieties, onions (Prize Taker and Gibraltar) for green bunching, a row of kohlrabi, etc., and after dusk, just before the break of the storm, I managed to get in a row of different kinds of lettuce. These rows are clear across the patch, several hundred feet long. Then the fun commenced. First it was a little drizzle; then during the night it turned to snow, and finally it was a snow-squall and a blizzard such as we might expect in February or early March, but not after the middle of April. During the height of the storm, and with the ground covered almost a foot deep with snow, I was enjoying the situation, knowing that I was one of the very few who had things growing even under the snow. Now that the snow is off again the radishes and peas and other things will be ready to come up and grow right along, and I will have these vegetables fresh from the garden nearly or fully a couple of weeks earlier than people who have to wait until the ground gets dry enough for planting again before they can put their peas and other stuff in. The early bird catches the worm. With peas especially the difference of a week or so in earliness means a great deal; that is, when you grow them for market. There is good profit in green peas if you can market them when they are as yet scarce, and consequently high in price. The profits dwindle down to almost nothing when everybody has them.

COMBINATION CROPS.—An Ohio reader tells me that he intends to plant some early cabbages and bush-beans between his rows of winter squashes this season. I think a good deal of the squash crop myself. It is one of the best to make combinations with. My Hubbards, as I have stated before, are usually grown in the sweet-corn patch. The very early sweet-corn varieties are out of the way long before the squash-vines need much room, and for that reason we may just as well plant Hubbards at proper distances—say in hills ten to twelve feet apart, in every third row—and clear the patch of the corn as soon as the ears are harvested. In later sweet-corn we may leave a row or two without planting corn, then plant squashes in hills on the vacant strips and let the vines run in under the corn on each side of the squash rows. Early cabbages and bush-beans, however, will do first-rate for a combination with winter squashes. The rows may be laid off two and one half to three feet apart, and every fourth or fifth row left for the squashes. The cabbages, of course, are to be planted in early spring and long before the time has come for planting squash-seeds. They will be out of the way by the time the squash-vines begin to run. The beans, on the other hand, cannot be planted more than a couple of weeks ahead of the squashes, and they will be more in the way than the cabbages. For that reason I would select the earliest of the bush varieties, and the new Stringless Green Pod, which our correspondent mentions with so much praise, as having been ready to pick on July 4th, and being entirely without strings, is probably as good a one as he could select for a snap-bean. But they should be pulled promptly when the squashes want the room.

VARIETIES.—Our friend is going to plant for trial the following squashes: Hubbard, Marblehead, Boston Marrow, Fordhook, Bay State, Mammoth Chili. The Hubbard is yet the leading market sort, and about as good as any in quality, unless we except the little Cocoanut. I have never found it bitter. The one fault I find with my winter squashes is that they vary so much in quality. Sometimes my Hubbards are as dry and mealy as I could wish, and then again they are rather watery. It makes no difference which of the many strains of this squash I plant. Sometimes I have thought that the Chicago Warted and Pike's Peak were drier, and then again I had a notion to give the preference to the Golden Hubbard. The trouble is probably more with the soil and the manner of growing the squashes than with the variety or strain. For home use, however, I will fall back on the Cocoanut, which I have not grown for some years, and which used to be with me remarkably fine-grained, dry and sweet. I do not remember about the Sweet Potato squash. Gregory's Butnam was a fine winter sort, too. The Sweet Potato "pumpkin" is a good sort for pies, and for the same purpose I often use any of the winter squashes. Mammoth Chili squash, however, can boast of nothing except size, being little better than a pumpkin. It is good enough for stock, and possibly for pies, but not for the ordinary culinary uses of squashes.

MANGELS FOR STOCK.—A reader in Oswego County, New York, asks me a number of questions concerning the growing of beets for stock. The first question is about the best variety. The Danish Improved sugar-beet, to which he refers, is not my favorite, for the reason that I grow mangels mostly for their bulk; that is, for the water that is in them. I furnish to my cattle a good share of their drink during the winter months in the form of succulent roots. As I can grow more tons an acre of the ordinary mangels, such as the Mammoth Red, the Golden Tankard, Yellow Globe, etc., I prefer these sorts. In my deep, loamy soil I have good success with the long red sorts, and from these I obtain the largest bulk. The round and half-long yellow sorts, however, seem to be more solid and brittle than the former. In shallow or sandy soils the Globe sorts will probably give the best results. My way of planting is to drill the seed in with my garden-drill, making the rows three feet apart, and not later than the middle of May. If it becomes necessary to sow much later than that I would select earlier-maturing varieties of beets. Last season I made a failure of some of my earlier sowings, and by the time I discovered this it had become so late that I planted the common Red Turnip (table) beet. They made a fair crop, and came very acceptable. I try to cover the seed about an inch deep, rather deeper if the soil is very dry, using four to six pounds of seed to the acre.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Grape Culture.—M. S., Peninsula, Ohio. The care and culture of grape-vines is such an extended subject that it is quite impossible to give anything like a comprehensive account within the limits available here. I would suggest that you get a little book, entitled "The Training of Grapes," by Prof. L. H. Bailey. I think that it is published by the McMillan Company, New York City, and that the price is about seventy-five cents.

Oyster-shell Bark-louse.—F. A. W., Lost River, W. Va. The twigs of apple-tree are infested with the oyster-shell bark-louse. This is quite a troublesome pest. There is no satisfactory remedy that can be applied to it in summer. The best treatment is spraying with kerosene emulsion about the first of June, since at that time the eggs have probably hatched from under the scales and the young insects are traveling about in search of a permanent place.

Peach-aphis.—R. T., Fort Huachuca, Ariz. The peach-buds sent on are infested with what is known as the peach aphis, or louse. This is a very troublesome insect in some sections. Occasionally, however, they will be destroyed by their parasites or by a late freeze, which may also destroy the buds of the trees. Practically the only remedy is to spray the buds just as they are opening, with whale-oil soap and water or with tobacco-water, as frequently recommended for the different kinds of aphis.

Red Rust on Raspberries.—J. C. L., Iowa. The red rust which appears on the under side of the leaves of your raspberries is a disease which is quite easily held in check if all the affected canes are cut and burned as soon as observed. This should also be done in case of any wild plants near by. If treated in this way I think you will have very little serious trouble from it. If you like the Shaffer raspberry, and wish to grow one that is very similar, or even better, and does not have the cane-rust, I would suggest that you raise the Columbian, which is to my mind simply an improved Shaffer. The Loudon is the best red raspberry for this section, on account of its being far brighter in color as well as much better than the Shaffer, which is rather purple and in this market is not popular.

San Jose Scale.—F. W. A. H. The twigs of peach-trees which you inclosed are badly infested with the San Jose scale. I think the best treatment would be for you to dig up all the trees which are infested, even ever so little, and burn them, as it is almost impossible to thoroughly rid the trees of this pest, and it increases so very rapidly that unless every scale is destroyed it soon covers the trees again.

Barberry Seedlings.—M. K., Brockton, Mass. The Japanese barberry and our native barberry will grow quite easily from seed. The seed is best planted in good, moist soil in boxes in the house in March, and when it has come up and is well started the seedlings should be transplanted to the open ground. If, however, you have a large amount of seed, so that you would not mind a small loss, there is no objection to sowing this seed in the open ground as soon as the soil is settled, and allowing it to remain there during the summer.

Plum-rot.—M. D. The trouble with your plums is undoubtedly that they are injured by what is known as brown-rot, or monila. This disease appears early in the season, and is actively present on the trees more or less throughout the summer. The only practical remedy I know of is to spray the fruit with Bordeaux mixture, the formula for which has so often been given in these columns. If the fruit is kept covered with this until it begins to color you will undoubtedly have little trouble from this disease. Bordeaux mixture is a common remedy for this trouble among fruit-growers.

Transplanting Large Apple-trees—Eradicating an Old Hedge.—J. H., Blue Springs, Mo. Apple-trees ten years old do not move easily and are so liable to be set back by the change that it hardly pays to bother with them. A more economical and I think much more successful thing for you to do would be to buy new, thrifty trees and plant them where you want your orchard.——The best way for getting rid of an old hedge is to grub up the stumps and then plow the soil thoroughly with a sharp plow, and remove and burn all the roots. Some trees will sprout badly from the roots when treated in this way, but if the place is kept cultivated through one summer there should be no special trouble from them.

Sun-scald and San Jose Scale.—H. E. W., Avon, Ill. Sun-scald is very liable to cause a roughness on the bark of trees, even in cases where it has not been so severe as to kill the bark entirely. I think this will often account for the fact that the bark on some trees exposed to the sun is much rougher and peels off in flakes upon the south side. I have never seen it show itself by causing the bark to feel slightly greasy. There is no similarity in appearance between sun-scald and San Jose scale, at least to my eye, although perhaps if a tree were infested only on the southwest side there might be some little ground for believing it to be the same. The San Jose scale will attack almost anything—the apple, pear or peach—and under some circumstances it has even been found upon grass. If you have what you think is San Jose scale, please send on a specimen and I will identify it for you if I can. If the roughness feels greasy and rubs off I should suspect scale.

Scale-insects on House-plants.—G. F. R., Homer, Minn. The scale infesting your house-plants is at times quite troublesome. The best remedy is to start with cuttings that are free from this scale. Look them over carefully and be sure there is not a sign of a scale on them, and then throw away the old plants and keep the cuttings away from contact with anything that has a scale on it. Treated in this way you ought to be able to get rid of it entirely. On your old rose and orange plants the best way to get rid of it is to scrape off the scales with a tooth-brush, or something similar, and then wash the whole tree thoroughly with whale-oil soap or kerosene emulsion. The best time to do this is shortly after the eggs have hatched out in the scales, at which time this insect is very sensitive. If you will lift some of these scales, especially the old dry ones, and examine them with a hand-lens, you will find that what appears to be a mere powder under them is made up either of small, lively scale-insects or simply a collection of eggs, and a little careful examination will indicate to you the right time to destroy them.

Unthrifty Cherry-trees.—E. L., South Norwalk, Conn. I think the reason your cherry-trees do not grow is due to the fact that they are sod-bound and that they have not been properly cultivated. If they had been well cared for I think they would have made a good growth by this time. The Governor Wood and Black Tartarian—the varieties you mention—are both strong-growing kinds, and in good soil should have made good-sized trees by this time. It is quite possible that if you examine them thoroughly you may find some borers in them, as trees that are not thrifty are especially liable to become infested with insects. They certainly ought to answer the purpose of fruit as well as shade, and will do so if given proper soil conditions. It may be that the soil is now altogether too poor, and that it is necessary for you to supply new soil. In this case the best way would be to dig a hole perhaps three feet square and four feet deep about four feet away from the trees, and then fill this hole with stable manure, and you will find that after the roots reach it the trees will make an excellent growth. If when digging the hole you find the roots do not extend out so far, it would be well to work up to the tree, supplying good, rich soil, so the roots will follow out to the manure supply. Treated in this way I think you should be able to make them grow well.

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SITTING HENS AND CHICKS

THE walls of the poultry-house and roosts should be whitewashed, the nest-boxes well cleansed and put low down, and the house made snug and comfortable, as the hens will lay and sit better if they are in retired and quiet situations. Quiet hens should be chosen for sitting, and while they are sitting see that they leave their nests once a day for food, and a place should be provided for them to dust themselves. The chicks should not be taken from the hen as soon as they are hatched, as it makes her restless, but be allowed to stay in the nest for twenty-four hours, when they will be strong. Care should be taken not to give the chicks more than they should eat. It is better to give them a little and often. Food should be put on a clean board, so that should they leave any portion it can be easily removed. Give them water and milk to drink. It is essential that they be kept clean and dry or they will soon droop. A run should be placed in front of the coops for them to exercise in, but on no account should chickens be at large until the weather is warm, and then the grass should be dry.

CHICKS OF DIFFERENT AGES

Separate the chicks into lots according to their size as soon as they are turned out together. This applies especially to those in brooders. If this is not done the small ones never get a chance, and the attendant only gets worried at the eager, "greedy" big ones that gobble up all the food before the little ones get near. The result of the worry is that the attendant actually gets impatient with the larger ones, who are doing their very best, in their own ideal manner, of preparing themselves for the market, and he drives them off, whereas he ought to give them as much as they will eat and have the little ones in another pen where he can feed them undisturbed. Many chickens are really starved, although the owners do not know it. After all, what is wanted is to give the chickens as much food, without waste, as they will eat, so that one may get them ready for the market and cleared off the ground at the earliest date. Those who have small spaces often do far better in keeping poultry than those to whom half an acre of land, more or less, is of no consequence.

BUYING BIRDS AND EGGS

The cost for a sitting of eggs from pure-bred fowls may amount to several dollars, but with one or two sittings the flock would consist of a number sufficiently large to produce all the eggs that might be required for the second year. The proper way to start after the early hatching period is over is to procure birds in the fall, as then the yards of the breeders will be full and the birds can be purchased at a nominal sum, although one may buy birds in the spring if preferred, but they will cost more, as the breeders, having sold off the surplus, will not then sell pullets until they get good prices, as pullets are usually very scarce in the spring. Young cockerels, however, can be gotten for much less than their value until late in the season, unless one is anxious for show birds, which are really no better for practical purposes than others that are of pure breeds. Buy eggs now and hatch them before June if possible.

YOUNG DUCKS

Ducks are thickly covered with soft feathers and feel the effect of warm weather more than chickens. They will not thrive if they have no shade, and when very warm are easily affected with cramps if they drink too much cold water, which kills them in a short time. Nor should ducks have much grain at this season. Plenty of green food is better, and as the duck is not dainty it will eat all kinds of grass and nearly all kinds of weeds. Bran and potatoes or turnips should be used in place of ground grain.

THE INCUBATOR

The summer is the season to experiment with an incubator, as such work can now be done at the least cost, eggs being cheap, and less warmth is required. It is an excellent plan to try an incubator, practise with it, and by the time the fall season sets in many of the usual mistakes will be avoided.

NEST-BOXES

Such materials as cut hay, straw, grass, etc., are not absolutely necessary for nests in summer. The best material for nest-boxes in summer is earth, as it offers fewer advantages for lice. Take a soap-box, cover the bottom with four inches of dry dirt, sprinkle some fresh insect-powder over the earth and the nest will be complete. The nest should be made new with fresh earth at least once a week, as it may happen that an egg will be broken in it, the earth then being an excellent absorbent. Keep the nest-box in a cool place where the laying hen will be comfortable when on her nest.

THE MINERAL ELEMENTS

The mineral elements are essential to growth. Bran and bone-meal are rich in the phosphates, and hence are among the best foods that can be used for growing chicks. Bran may be fed by mixing it with any kind of food, especially potatoes and turnips, and young ducks fed on it grow rapidly. Ground (not cut) bone may be placed in some location where the fowls of all ages may have access to it, as they will eat only what they require. A cigar-box filled with it and placed in the poultry-pens will be all that is needed in the way of providing it. Cut bone should be fresh.

FLAVOR OF EGGS

The flavor of eggs is influenced by the food. This may be easily tested by shutting up a laying hen and giving her garlic to eat. In a few days the eggs will indicate the flavor. Another theory (but which is not fully confirmed) is that an egg laid on any strong-smelling substance will contract the odor. This is explained by the fact that the shell when the egg is first laid is comparatively soft and impressionable, and becomes hard only after contact with the atmosphere. It is more probable, however, that any objectionable flavor is due to the food.

CORRESPONDENCE

REMEDY FOR SCALY-LEGS.—If "T. M." Pasadena, California, will take a pint-measure full of petroleum, dip the chicken's feet and legs into it, in a few days the scale will fall off. R. T. D.

Kingston, Mich.

PREVENTING EGG-EATING.—I see so many inquiries of how to break hens of eating their eggs. Do not make the nests of litter that the hens will scratch in. Get plaster where a brick house or chimney has been torn down, and break it up for them. It will help to cure them of laying soft-shell eggs. S. R.

Vicksburg, Miss.

INQUIRIES ANSWERED

Sore Comb.—E. R. H., Grover, Pa., writes: "I have a male fowl with a sore comb next the beak, and it frequently bleeds."

REPLY:—It may be due to pecking from other birds. Separate the bird from the others and anoint the comb with vaseline.

Chicks Dying.—E. A., Lamoni, Iowa, writes: "I have been losing chickens. It is not cholera. They droop a few hours and then die."

REPLY:—It is difficult to assign a cause or remedy unless mode of management and conditions are given. It may be some poisonous material they have consumed.

Fowls Too Fat.—J. V. S., Fruitland, Oregon, writes: "I have fifty fowls. They are apparently healthy, but lay few eggs, frequently dropping eggs from the roost. A dead one had a very large liver."

REPLY:—The fowls are probably very fat, due to excess of grain in the food. Reduce the food one half and make them scratch for all they receive.

Pekin Ducks.—S. G., Jacksonville, Florida, writes: "Give mode of feeding Pekin ducks."

REPLY:—Keep ducklings dry until they are full-feathered. Feed cooked turnips or potatoes thickened with bran and corn-meal, giving ground meat in the food. Feed three times a day, giving also chopped grass. When a month old turn them on grass, feeding only at night. Use one part ground meat, one part corn-meal and two parts bran.

Enlarged Livers.—B. M., West Greenwood, Pa., writes: "My hens are dying; their combs get pale, and they mope around a week or two and then die. I have opened most of them and their liver is four or five times as large as the normal. What can I do for them, and is it catching? I feed about one gallon of oats in the morning and two thirds of a gallon of corn in the evening to about one hundred hens. They can go wherever they want to and are laying well."

REPLY:—Enlarged liver is usually the result of overfeeding. The quantity of food mentioned is large for fowls having free range.

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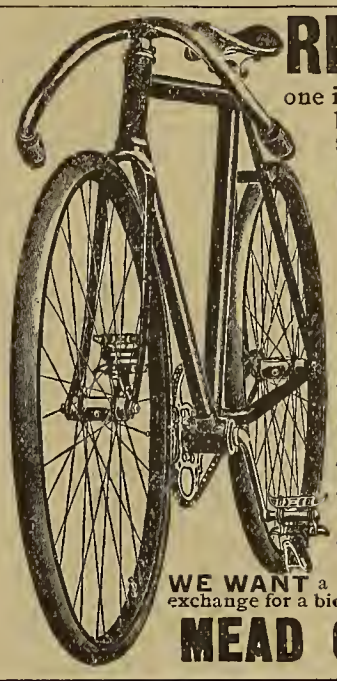

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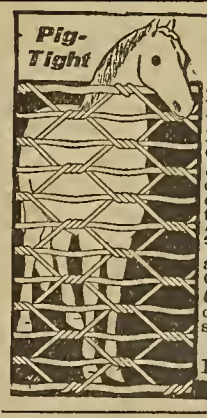

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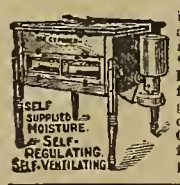

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QUERIES
READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Melon Fertilizer.—Mr. Winans says in reply to an inquiry by J. J. R., Tennessee: "The fertilizer referred to in my article on 'Melon Culture,' page 8, March 15th issue, as a special melon manure may be mixed from the raw materials or bought of one of the better class of fertilizer manufacturers, being certain beyond peradventure that the goods are composed of only the highest grade and choicest materials. The complete manure for the application in the hill should contain the nitrogen in blood, tankage, sulphate of ammonia, and only enough nitrate of soda to furnish the first available nitrogen to give the plant a rapid start. The phosphoric-acid carrier should be quite soluble and available, and preferably of the dissolved or treated bones. Potash is probably best in the form of sulphate."

Canada Thistles.—T. R., Burlington, Wash., and J. M. G., San de Fuca, Wash. From Beal's "Grasses of North America" we take the following: "Canada thistles have long roots which store up nourishment during the latter part of the summer and fall, to feed the spring growth. To kill the thistles without the loss of a crop, have the land rich, if possible; at least have it well seeded to clover, and by top-dressing with land-plaster, ashes, or by some means, get as good a growth to the clover as possible. As soon as the clover is in full bloom, and here and there a thistle shows a blossom, mow and make the crop, thistles and all, into hay. After mowing apply a little plaster to quickly start the growth of clover. You will find this to come much quicker than the thistles. As soon as the clover has a good start—from July 20th to August 5th—plow down, being careful to plow all the land and to fully cover all growth. Then roll and harrow at once, so as to cover every thistle. But few thistles will ever show after this, and they will look pale and weak. When they do show, cultivate thoroughly with a cultivator having broad, sharp teeth, so as to cut every one off under the ground. In two days go over with a sharp hoe and cut off any that may have escaped the cultivator. Watch the thistles and keep using the hoe and cultivator until freezing weather. You will see them getting scarcer each time and looking as though they had the consumption. By plowing the land just before freezing you will have it in the finest condition for the spring crop. This plan not only kills thistles, but oxeye daisies and other weeds. It is much better than a summer fallow and without the loss of a crop."

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Nodular Disease.—R. S. C., New Florence, Mo. The disease of your Angora goats appears to be the same as that of the sheep of A. M. C., Hugbart, W. Va. Please consult FARM AND FIRESIDE of March 15th.

Dysentery Neonatorum.—J. M., Thomaston, Conn. If your newly born lambs are attacked when only twenty-four hours old medication is useless. For further information please consult answer under above heading in FARM AND FIRESIDE of January 15th. If the young lambs are already six or seven days old when attacked, the same treatment prescribed for calves in the just cited answer will be likewise beneficial to lambs, but the dosis must be reduced to one third or one fourth.

Foundered Ten Days Ago.—L. G. C., Phoenix, Neb. If your mare has become foundered ten days before you wrote, and was not yet well at the date of your writing, the twenty-fourth, a complete restoration to her former condition is excluded, and will never take place; but shod in a rational way with a pair of good bar-shoes will very likely enable her to do just as much slow work on a farm as ever, but for traveling on a hard road, or at a gait much faster than a walk, she will be disqualified.

A Hard Milker.—M. M., Sutter Creek, Cal. If a cow is hard to milk, the only remedy, as far as a remedy is possible, consists in very energetic milking, while if this is not done the case will get worse in the course of time. Such a cow should be milked by a man who is an expert milker and has a strong grip in his hands.

Probably Something Wrong with the Bridle.—O. M. McE., Claremont, Va. If your horse "throws his head up and down and sideways, and don't mind the bit when hitched up," there is probably something wrong with the bridle, either with the bit or with the head-stall, that causes him pain or great discomfort. Investigate, and when found remove the cause.

May Have Been an Epileptic Fit.—W. C. L., Stafford. As far as it goes your description of the attack of your cow—you fail to say anything definite about its duration—may be that of an epileptic fit. Still, although by itself alone it does not contain anything characteristic of any other disease, I have my doubts. If the attack was an epileptic fit, sooner or later another one very likely will follow.

Perhaps a Case of So-called Grease-heel.—H. C., Lewis, Nev. May it be that it is a case of so-called grease-heel that you attempt to describe? If so, make twice a day a liberal application to the sore parts of a mixture of liquid subacetate of lead, one part, and olive-oil, three parts, and keep the swelled leg clean, not by the use of water, but by frequently rubbing it with a dry rag. Exercise the horse as soon as the sores have healed.

Either Heavy or a Roarer.—E. H. S., Lawrence, Kan. According to your rather superficial description your horse is either heavy (affected with heaves) or a roarer. Concerning the former please consult FARM AND FIRESIDE of May 1st, and in regard to the latter see issue of April 1st. If it is found that the horse is a roarer, that the cause of the roaring has its seat in the larynx, and it is concluded to have the operation performed, the latter should be intrusted only to a competent veterinarian.

Blood-poisoning.—P. E. W., Montague, Mich. There can be no doubt that the blood-poisoning of your calf was the result of the dehorning operation. Your calf will probably be dead before this can reach you, and it will be of no use to advance an opinion how the blood-poisoning took place. Your letter was received on the afternoon of the twenty-third, and the veterinary column of the issue of May 1st was printed on the nineteenth, so you see the impossibility to comply with your request. Your letter arrived just nine days too late.

A Hard Swelling.—O. W., Ashley, Ohio. You say your horse was cut below the elbow by a barbed wire on the seventh of January, that the cut, which was two inches long and one and one half inches deep, has now healed, but that a "hard lump" remained. This brief and superficial description does not convey any idea of what that "hard lump" may be, whether it is the retracted end of severed muscle or tendon, an exostosis on the bone produced by an injury or wound of the periosteum, or simply a large and callous scar. Hence, all I can do is to advise you to have it examined by a veterinarian.

Looks like Foreign-body Pneumonia.—J. C., Clintonville, N. Y. What you describe looks a good deal like a case of so-called foreign-body pneumonia, or inflammation of the lungs, caused by an entrance of foreign bodies into the bronchial tubes. It occurs most frequently if medicines containing either solid and insoluble particles (insoluble powders), or fat or oil rudely given as a drench, are poured into the trachea. There is nothing in your communication that indicates, or can be construed to indicate, the existence of tuberculosis.

Periodical Ophthalmia.—B. E. C., Goldsboro, N. C. What you describe is unquestionably a case of periodical ophthalmia, a disease which almost invariably will terminate in blindness. Your heavy feeding may have accelerated the attacks, but does not constitute the cause of the same. The latter, for all practical purposes, is as yet unknown, and so far any treatment has proved to be unsuccessful. For further information consult the numerous answers that have been given under the above heading in these columns. The predisposition to periodical opbtbalmia is hereditary.

Inclined to Scour.—H. M. K., Yantic, Conn. You say your horse is inclined to scour, but do not say whether such is the case only when driven, or also when at rest in the stable. If it is the latter, I advise you to send your horse for about a month or five weeks, or until the fly season is approaching, to a good pasture and to exempt the same during that time from all kinds of hard work, because such a thorough change of diet will, not immediately, but very soon, have a good effect upon the probably existing catarrhal affection of the intestines. If it is the former, please consult answer to D. F. S., Nebraska, Pa., in FARM AND FIRESIDE of May 1st. At any rate, do not feed too much ground food. At first it may have apparently a good effect, but in the course of time it will seriously weaken the power of digestion.

Sudden Death of a Cow.—H. D., Bates, Cal. It is utterly impossible to tell you of what disease your cow died. You say, "She dropped a calf on the fourteenth, and seemed hearty and well; on the fifteenth she went out in the pasture, lay down under a tree, and died the same night." There is not a solitary symptom. You further say, "Upon opening her I found the heart very large and the gall (bladder, you probably mean) as large as a pint measure, or nearly." There is not a single morbid change, except possibly as to the size of the heart; but how shall I know what you call large or small, or whether you are familiar with the average size of the heart of a cow? A gall-bladder of the size of a pint measure, or nearly, is in a cow, especially if she has not eaten for say twelve hours or longer, nothing extraordinary. So there is absolutely nothing upon which a diagnosis can be based. Since the cow died so soon after calving, and was in such an excellent condition that she was fat enough for beef, it may be possible that she died of puerperal paralysis; but this is only a suggestion and nothing more.

Did Not Go Dry.—W. M. K., Bellevue, Iowa. It is true some cows, particularly of the Jersey breed, have been developed into such milk-factories as to make it difficult to get them dry and to give them thus a much-needed vacation of about two months before calving. In such a case there is but one way, and that is to withdraw during the last three months before calving all the highly milk-producing food, to keep the cow on a light diet and to allow her sufficient and suitable exercise. If such a cow has no rest whatever it will fearfully tax her not any too strong constitution and not only injure both the cow and calf, but also lay the foundation for quite a number of diseases, or very much increase an already existing predisposition to become diseased; for instance, a predisposition to garget and to tuberculosis. If it is intended to make such a cow dry, all slops and other kinds of relaxing foods must be avoided and withdrawn and pure and fresh air must be provided. As you are situated now, all you can do is to keep the cow under good sanitary conditions and to milk quite often, even oftener than three times a day, until milk and udder are again in a normal condition.

Luxation of Patella.—W. T. B., Swan, Ky. First effect a reponition, which will not be very difficult since the case is already of a few months' standing; then keep the horse for at least four weeks tied in the stable in such a way that the same cannot lie down, and of course exempt the same during that time from any and all kinds of work. It is necessary to keep the animal standing, because getting up or down usually causes a renewed luxation, and thus a relaxation of the relaxed ligaments. If, notwithstanding that the animal is kept on its feet, a new displacement, or luxation, of the patella should occur, a reponition is usually effected by suddenly pushing the animal sideways or backward, or by giving the same an unexpected stroke with a whip. Blistering or applications of sharp liniments, etc., can do no good, except in so far as they may cause pain and swelling and thus induce the animal to favor the knee-joint and to move it as little as possible. Exercise of any kind must be strictly avoided until the relaxed ligaments have regained their former strength and have become contracted to their normal length.

Will Lose a Hoof.—J. W., Middletown, Oreg. To reproduce a new hoof with horn strong and firm enough to hold a nail, to admit shoeing and to qualify the horse to go to work again will require a whole year. A new hoof with brittle and morbid horn that will not hold a nail, and will be a source of constant lameness, can be sooner produced, perhaps in half the time, by forcing the growth of the horn. But you may have heard of the old and true English adage, "No foot, no horse." If you want the new hoof to become approximately normal, you must first procure a stout leathern shoe made to fit a trifle loosely around the hoof of your horse before it was injured. Having that in readiness, cut away with a sharp hoof-knife all the loose horn of the injured hoof, clean the exposed surfaces carefully with a one or one and one half per cent solution of pure carbolic acid in clean water, have enough perfectly clean muslin bandages at hand, and perhaps, also, some absorbent cotton, to carefully dress and bandage the exposed part of the foot. This done, slip on the shoe. The cutting away of the loose horn, the cleaning, dressing and the handaging of the exposed part of the foot must be repeated as often as necessary; the latter for some time to come, or until the whole raw surface is coated again with a layer of horn, twice a day. If the horse is a good one, and all the work and the exquisite care necessary are not too much for you, go ahead, and if you do not get tired and do not relax in your care you will succeed; but under opposite conditions it will be cheaper to kill the horse and to buy a new one. To work the poor animal before the end of a year is out of the question. If in the beginning, when the horse was pricked by a nail, you had cut away the loose horn and had properly dressed the wound and protected the same in an effective way, you would have had a well horse in about two weeks, or even sooner; but that is past and too late now.

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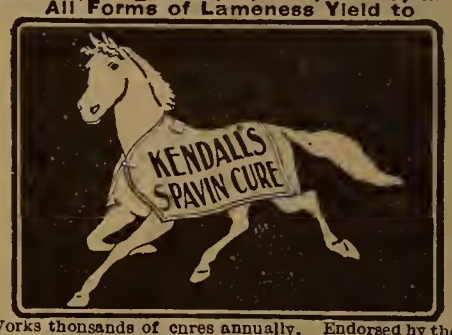

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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

CHARACTER-BUILDING AS INFLUENCED BY THE HOME, SCHOOL AND GRANGE

A MEMBER of Randolph Grange, of New York, sends us a good essay on the above topic, from which we give a few extracts:

"Every individual, from the beginning to the end of life, is consciously or unconsciously making character. It is good, bad or indifferent, according to the standard chosen and the people who judge them. As our very existence depends upon our surroundings, it follows that character depends in a great measure upon the adjustment of self to these surroundings. No matter what our ancestors have or have not done for us, we are still a part of the supernal source.

"The home should be of the first importance in character-building. And did every home give the instruction and influence it ought our progress would be much more marked. The fundamental principle of good character is purity. A child should not be sent from home until he has been well grounded in the principles that combine to make a perfect life and recognizes his responsibility as a co-worker with the Creator. With such training I cannot conceive of his going far from the path of rectitude.

"To children the words and acts of every individual serve as examples. Do we of mature years realize our great responsibility? Parents too often place a light importance upon the real value of politeness in the home. Is it not true that in the home—the very nucleus of life and society—should be practised those rules of living that tend to the betterment of society? Rules of etiquette differ but little, and may all be resolved into the Golden Rule, and there is none higher than this by which to gage human character.

"The books we read are potent factors in character-building. Many of the books that fall into our children's hands give such distorted views of life or teach such a low type of morality that we shudder when we behold them. Aim always to supply the children with reading that will contribute to a higher, nobler life, that will give them true ideas of life.

"The schools must supplement the moral training of the home. The most prominent educators of our day are coming to the conclusion that young men and women must be fitted to meet and discharge the duties of good citizenship. Teachers should always keep in mind that good character is more to be desired than great knowledge. Ruskin most truly says, 'To have the heart open and the eyes bright, the emotions and thoughts warm and clear, and not the knowing of this or the other fact, is the state needed for all mighty doing in this world.'

"The home, school and grange should be interdependent in their influence. Each should contribute to the welfare of the other in everything that affects the character of the child. I am sure grange influence will be stronger than any other organization, because of the equality of man and woman. Would we bring to the highest state of perfection the best product of the farm—its boys and girls—then the grange will aid us, for it declares its first and highest aim is a better manhood and womanhood."

CURRENT COMMENT

Children's Day The happiest, brightest day of the year should be "children's day." 'Tis then that we forsake the grave cares of life, the humdrum existence, and devote ourselves to making the children happy, and derive from their joyous shouts and laughter pleasure for ourselves. Let the children help to make the occasion memorable by recitations, dialogues and music. If older people take part in the literary exercises, select those who have a hearty sympathy for the little ones and who can enter into the spirit of the occasion. Children love such men and women. Let not the literary exercises be long; short, pointed addresses, if any. And then comes the playtime—the games, the romping, rollicking fun—and after that some refreshments if desired. Let the day be one which the children will long remember. Let it be so happy that they will look forward to it as eagerly as they now do to Christmas and Easter. Thus will be associated with the grange the happiest, brightest hours of the year. Teach the children thus indirectly to love the grange and to look to it as the source of greatest contentment, and when they grow older they will love it and cling to it. The work of the grange has only just begun. It is to these little ones that we must look for the reaping of the harvests that we are now sowing.

Grange Soil Where can granges be organized? In any community that has intelligent, progressive farmers who have learned the art of living together amicably and with a fair degree of happiness. There must be sufficient energy and intelligence to have interesting, helpful meetings. The grange is not self-perpetuating. It will not supply backbone and energy to the shiftless. It has no magical wand like Circe's, that will transform a narrow, arrogant man or woman into an intelligent, self-reliant being. Nor will it turn dross into gold. But it will aid every man and woman willing and capable of helping themselves to live broader lives. It will multiply their usefulness a hundredfold and give them increased worth and dignity, because it will magnify their power, enlarge their sphere and perpetuate their influence. Back of every grange stands like organizations, with hundreds of thousands of the most progressive, energetic farmers of our country ready to encourage and help. And as they realize the real power of the grange they will become yet more earnest and helpful.

Experience has proven that a community rent by internal strife cannot support a grange. Where families are embroiled, where churches are involved in an inextricable confusion, there can be but little hope of the high and lofty sentiment of fraternity finding lodgment. We all remember the story of Æneas' descent into the infernal regions, and how, on the brink of Averness, he found forms horrible to view—Griefs and Avenging Cares, Toil, Poverty, Death, Age, Fear and Hunger. There the Furies had abiding-place, and huge monsters hideous to view. But chief among them was Discord, whose hair was of vipers bound together with a bloody fillet. They were never at rest, but writhed and hissed and brought devastation, destruction and death wherever Discord found a lodging-place.

Time has not changed it either in appearance or function, nor has it been shorn of any of its powers. A community in which discord rules is foredoomed and cannot prosper. It is bound to be left in the race of life. Time and strength are too precious to waste on a community of people who are so degenerate that they cannot find somewhat of sweetness and beauty in life. Rather give time and help to those who will repay your labor by helping others into the light. It is poor economy, we will sometime find, to succor the weak degenerate already foredoomed by a kind fate to extinction, and refuse aid to the one almost strong enough to succeed, yet lacking in one particular. Likewise it is poor judgment that urges us to attempt to plant granges in communities unable to help themselves.

Two Wishes Had I the opportunity of wishing for two things for my readers, knowing that they would be granted, I would not hesitate long in deciding what to desire. First of all, I would ask that every farmer and his family might take sufficient rest. Next, that at least one half hour of each day be given to the development of the mental and spiritual nature. No race or class can long succeed that depends upon mere physical powers for success. The lowest-paid labor—that which in times of depression is soonest dispensed with—is the unskilled. In an age where the best brain is taxed to direct the brawn successfully it is sheer foolishness to hope for even moderate success when we use all of our strength in physical toil. When we learn to be temperate in work, and realize the limitations of human endurance; when we better know the divine plan of the universe and our place in it, then indeed will dawn the golden age for the farmer. We must be more than planters and reapers. We must be a part of the great thinking universe.

It is a hard thing to overcome, this desire to do a little more—plant more acres, rise an hour earlier and work an hour later. We dare not take our midday rest. It is a feverish rush, rush, day after day. And when the year is closed and the books straightened up we find our extra work and worry was for naught. Why can we not learn the lesson taught year by year? Why can we not see that the constant dwarfing of the mind means mental death? When will we learn the lesson the ages have struggled in vain to teach us—that the best, the most successful life is that in which both brain and brawn are equally developed? It will require will-power of a high, rare kind to stop when one is healthfully tired; that is, when a night's rest will bring rest and refreshment. But we must exercise this faculty of the will if we are to be successful. A day's hard manual labor and a night devoid of rest and ease mean misery for all. A day's moderate labor, with a night's refreshing sleep, brings health, happiness and prosperity. Moreover, as we learn to rest wisely, the more will we learn to work wisely, to plan intelligently and successfully. Rest combined with a due amount of mental gymnastics will do much toward solving those social ills for which we so glibly blame the politicians. Can we not be strong enough this summer to be temperate in our work, to take the needed rest?

"To-day is a king in disguise. To-day always looks mean to the thoughtless, in the face of a uniform experience that all good and great and happy actions are made up precisely of these blank to-days. Let us not be so deceived. Let us unmask the king as he passes. Let us not inhabit times of wonderful and various promise without divining their tendency. Let us not see the foundations of nations, and of a new and better order of things laid, with roving eyes and an attention preoccupied with trifles."—Emerson.

"The Grange" "The Forum" for April devotes eleven pages to the discussion of the grange. Kenyon L. Butterfield, a promising young man, contributed the article. It is well written, comprehensive and withal a good statement of the struggles, hopes and ambitions of the grange. We quote from it:

"The grange was born of two needs, one fundamental and the other immediate. The fundamental need of agriculture was that farmers should be better educated for their business; and the immediate need was that of cultivating the spirit of brotherhood between the North and the South. The latter need was unquestionably a powerful factor in the destruction of the sectional spirit, and no longer exists; but the fundamental need still remains and is sufficient excuse for the grange's existence to-day.

"To enumerate the achievements of the grange would be to recall the progress of agriculture during the past quarter of a century. It has been a motor force in many helpful movements, and in many ways has organized and incorporated the best thought of the most intelligent farmers about means for rural advancement. It has been an integral part of, and a most potent factor in, the expansion of rural farm-life.

"The greatest achievement of the order is that it has taught the farmers of America the value of co-operation and the power of organized effort. The lesson has not been fully learned, it is true, but the success of the institution testifies that it is possible for farmers to work in harmony. It is worth observing that this result has been achieved on conservative lines. It is comparatively easy to organize on radical lines; easy to generate enthusiasm by promising some great reform; easy to influence self-interest by picturing millennial conditions, especially when the pocket is touched. But quite different is it to arouse and sustain interest in a large popular organization whose object is education, whose watchword is self-culture. Of course, it would be but half truth to assert that the order places all its emphasis on the sober problems of education. Agitation has had its place; the hope of better things for the farmer to be achieved through legislation and business co-operation has been an inspiration to activity; but the noteworthy fact remains that it has secured a fair degree of organization and co-operation among farmers chiefly by appeals to their larger and nobler interests."

Picnics Begin now to make preparations for your annual picnics, or field-meetings. Select your speakers early if foreign talent is desired. Especially is this necessary if you desire national or state officers and popular speakers. Dates with them must be made early, in order to be sure of having the speakers desired. Field-meetings are growing in popularity as a means of diffusing grange gospel.

Working for a Library Didn't I hear you say that you wanted a library and had asked Carnegie to send you one, and he refused? I presume you feel ashamed of yourselves, as indeed you ought to be. You can get a small one by your own efforts if you want it sufficiently. Not a grange that exists in a state where traveling libraries are established but should get one at once. Show your faith by your works.

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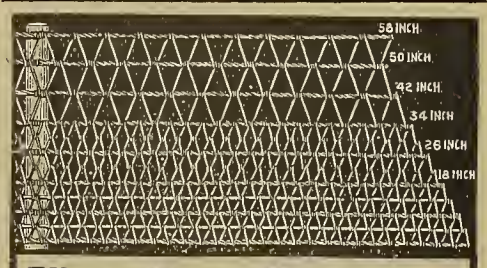

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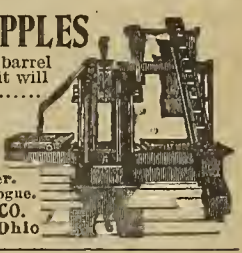
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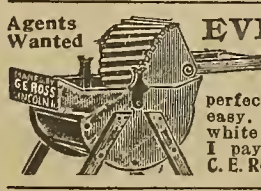
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Balanced Rations

BY MRS. CLARKE HARDY

No one can be said to be thoroughly proficient as a professor of housewifery until she understands something of the chemical elements of food and the purpose they serve when taken into the system. The use of chemistry in cooking is to teach how to supplement one kind of food by another which contains certain essential elements lacking in the first.

The human body has been likened to a machine, and, like any other machine, it is constantly wearing out. Every movement, every breath and every heart-beat is breaking down cells and tissues, and this waste must be constantly repaired to keep the body in normal working condition. The food taken into the system has two offices to perform—the repairing of muscular waste and the supplying of fuel to keep the bodily heat up to ninety-eight degrees.

Foods may be divided into two classes—the nitrogenous and carbonaceous and those in which both are united. Nitrogenous food repairs bodily waste and builds up muscle and tissue, and carbonaceous food supplies fat, heat and energy to the body.

Chemical analysis has demonstrated that the body requires four times as much carbonaceous as it does nitrogenous food, and this gives us the key to a proper proportion of the elements of food. Of late, too, especial attention has been given to brain and nerve food, and it has come to be understood that if we would send forth from our homes into the world strong, healthy, brainy men and women, well equipped physically and mentally for the battle of life, we must see to it that nerve and brain, bone and muscle, flesh and blood are all fed and nourished and built up, each with its own element of food. And thus the necessity for the balanced ration has been demonstrated.

Cooking, too, loses its old sense of common drudgery when considered as a scientific process, and a cook who understands food values and the chemistry of common every-day cookery has a perfect right to consider herself a scientist. When a knowledge of the wants of the body and the chemical elements of food are supplemented by intelligent cookery a wholesome, strength-giving, muscle-making meal is the result.

Of nitrogenous foods the richest is found in the albumen of eggs, lean meat, the curd of milk, peas, beans, oatmeal, whole-wheat flour and many vegetables, of which cabbage, onions and potatoes rank first.

Carbonaceous foods are in two classes—the fats and the carbohydrates, both containing hydrogen and oxygen. The fats include the fat of meat, cream, butter and vegetable oils and in grain.

Carbohydrates include starch and sugar—sugar being cane-sugar—honey and the sugar of fruits. The starches include the starchy vegetables, as potatoes, and cereals such as rice, corn, wheat and oats.

Milk is an almost perfect food. It strengthens the whole body; the cream gives us fat; the whey contains the salts and phosphates that strengthen the brain, bones and digestive organs, and the curd is the muscle-making, energy-producing substance. Eggs are valuable in nutritive elements, as they are not only rich in nitrogen, but furnish sulphur for the brain and nerves.

As a brain-food fruit heads the list, containing as it does the salts and acids which are exceedingly wholesome and which aid so materially in the digestion and assimilation of other food. Fish, eggs, oysters, lobsters, game and cheese, and among vegetables potatoes, are classed as brain-food. But from this it will be seen that the food that would best sustain and nourish a laborer in the open air would not be the best diet for a brain-worker. A dinner of salt pork, boiled cabbage and whole-wheat bread is nearly perfect for an outdoor laborer, as the cabbage is rich in nitrogen and the pork in carbon. Beans contain, next to meat, the most nitrogen, and are excellent food for laborers; afterward come oats, wheat and barley.

In cold weather the system requires more carbonaceous, or heat-producing, food. In summer fruit, creams, puddings and pies and vegetable salads should appear on the bill of fare.

And so while the wise housewife will provide hearty food for the active, out-of-door laborers of her family she will understand that the brain-workers require something different and more easily digested. And it will also be seen that a knowledge of food elements and the needs of the human system is quite necessary in order to provide the different members of the family with a balanced ration of food best suited to their physical and mental requirements.

Every housewife should supplement her collection of cook-books with a good volume on the chemistry of food, and should make its contents a special study. Scientific stockmen have come to consider the balanced ration a necessity for the best development of animal life, and how much more so must it be for the highest mental and physical development of human beings! Very much, of course, depends upon the preparation of food, but that would furnish subject-matter for another article.

The proportion of different food elements necessary for maintaining the body is given in a chart issued by the Department of Agriculture at Washington, and which is prepared by Prof. Atwater, of Wesleyan University, an acknowledged authority on food values.

WANTED—A BOY

"There is not a place of vice in this country," declares Mrs. Mabel Conklin, the purity worker, "which has not over its door the sign, 'Wanted—A boy.'" In confirmation she gives the story of two little boys in Brooklyn, playing innocently on a sand-pile in the street, when a saloon-keeper coming to his door called to them. The children ran to him at once without fear. No one had ever hurt them. Why should they be afraid?

Taking them inside the door the saloon-keeper mixed two small glasses of brandy with sugar and water and gave it to them to drink, asking them if it was not good.

"What did you do that for?" demanded an old toper who, although a habitue of the place, had looked on with amazement.

"Oh, I know what I am about," returned the saloon-keeper. "Those children have their homes in this neighborhood. I am only training them now so that when they are older they will come into my place of their own accord."

Some months ago at a brewers' convention the question came up as to who wonld fill the places of the drunkards who are constantly dying off. The question proved a serious one, for unless something could be done business would go down. Finally a young man arose, and in a brilliant speech suggested that the boys be brought in. He closed with these ringing words, which have been commented upon all over the country, "Nickels spent in this way to-day mean dollars in our pockets to-morrow."

Following this advice, saloon-keepers are now making the effort to bring in little boys, in some cases even offering them handsome gifts to draw them across the threshold. It is not hard to lure this fearless, confiding boy into the saloon. His tired, nervous mother cannot bear his noise at home; his sister considers him a torment, which undoubtedly he is; his father would not be troubled with him on any account, so he is turned loose on the street.

With ruddy cheeks and sparkling eyes and a laugh that bubbles over with honest joy, this boisterous little lad is always looking out for fun. Is it strange, then, that a strain of music, a glitter of light or even a trifling gift should attract him to the only place that stands wide open for boys at any time of day and night? The saloon-keeper realizes that to-morrow this boy will be a young man, and young men are his best-paying patrons. "When we realize," says one observer, "how few young men are in our churches and Sunday-schools, and how many are to be found in saloons and jails, an alarm should startle us as with a fire-bell."

Besides the saloon, the snare of the cigarette is awaiting this boy. He thinks it is manly to smoke. He cherishes among his possessions a button gaily ornamented with the picture of some great hero, and a bright-colored motto assuring him that a certain kind of cigarette "is the best thing in the world." On the way to school great blazing posters in red and yellow remind him of the cigarette said to be "recommended by the highest medical authority." To be sure, the small boy is warned against cigarettes, but no one is willing to sit down and in half an hour's reasonable conversation explain to him why he is forbidden to smoke them.

In a great city the lowest and most miserable of creatures may be seen on the streets gathering cigar-stubs out of the gutters, or in the saloons fishing them up with sharp-pointed iron rods as they float in the spittoons. This accumulated filth when gathered up is carried to a factory, where it is soaked in great vats of liquid medicated with alcohol and opium, and a dash of nicotine to give the cigarettes a pure Havana flavor. When dried and rolled this preparation is sold to the confiding boy, who believes it to be the best thing in the world.

The stand employers are taking in regard to cigarettes may be judged from the report that one of our leading railroad companies is to discharge all the cigarette-smokers among its brakemen. "Why not?" comments an editorial. "A man or boy who sucks himself full of cigarette poison is only one degree removed from an imbecile, and the sooner he realizes his true positiou the better for him." In the same paper is found the following advertisement:

"Wanted—A boy with fair common-school education, from sixteen to seventeeu years of age, to learn the printing trade. No boy who smokes cigarettes, nor who expects at any future time to become a cigarette-smoker, need apply."

While nearly all the men and women in Japan smoke, they are convinced that it reduces the strength of body and mind, and for this reason have passed a law forbidding smoking materials to be sold to any boy or girl under twenty. They hope for much good from this anti-tobacco law, for after twenty these young people will not be so liable to learn to smoke. The law itself is strictly enforced, and not long ago two American lads were arrested in the depot at Tokio for smoking, and their smoking materials confiscated.

Frances Bennett Callaway.

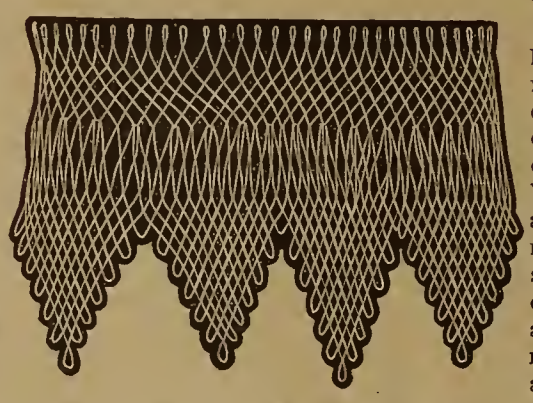
ORIGINAL DESIGN FOR NETTED LACE

Use No. 40 white spool-thread.

First row—Net plain over bone mesh one fourth inch wide, setting as many stitches as required. Then net six rows plain over medium-sized knitting-needle.

Eighth row—* Net 2 into 1, 1 into 1*, over mesh. Repeat from * to * all across.

Ninth row—Net plain over mesh. Net two rows plain over needle.



Twelfth row—Net 12 stitches over needle; turn, net 11; turn, net 10; continue until only one loop is left. Break thread and fasten it into last loop of the foundation 12. Net 12 more, and repeat until all the lace is worked off in points.

Joyce Cavendish.

A FORTUNE IN TEA-LEAVES

Late one blustering afternoon in March a group of young girls sat around a cozy fire in Edith May's den and sipped "the cup that cheers" and merrily munched the toothsome macaroon.

Anne Carew had just been saying she "yearned for the eye of a prophet," that she might see far into the coming summer, "a trip to Europe or a sojourn in the Catskills." Whereupon Edith impulsively jumped up, exclaiming, "Wait! I'll call Aunt Phoebe!" and rushed from the room.

The girls were still wondering what she meant when she came back with dear, white-haired Aunt Phoebe, who smilingly sank into an inviting arm-chair and said:

"Well, girls, I'll tell your fortunes. Make fresh tea, Edie, and do not use a strainer."

And while the tea drew she told us how the old fisherwomen on the Maine coast had taught her in her girlhood days to forecast the future by the tea or coffee grains.

"Drink all but a few drops of your tea, and make a wish as you do so. Then turn your cup down over the saucer and whirl it vigorously around three times, to drain the remaining drops and to 'settle the future.' Make your wish again, then hand the saucer to me."

Then she told our fortunes, amid great laughter and excitement, finally giving us her formula:

Journey—A line of dots extending at least one third distance around the saucer. If it ends in a cluster a large city is the destination. If there are many large grains they indicate difficulties to meet. A clear line is good fortune; a cloudy one, the reverse.

Letter—Four dots in the form of a square mean that a letter of importance is to come. The nearer the rim of the saucer the sooner it will arrive.

Ring—A happy marriage is foretold by a clear circle, but trouble in this relation is to come if the ring is badly broken.

Moon—The half-moou indicates great honor to come.

Flower—Success in the lines of literature and the arts.

Triangle—Dots found in this position mean the fulfillment of the wish.

Parallelogram—This figure portends misfortune, sickness or money losses.

Cross portends adversity; but if there are several large dots near, recompense is promised.

Star indicates long life; the clearer it is, the happier the life.

Drops—Tea left floating in the saucer means tears.

Men—Large, hardened leaves in the shape of hat, cane, boot, etc., denote men.

Women—The lighter, spreading ones are the women. If the ground is clear around them they are friends; if cloudy, enemies.

Many dots surrounding one of these figures indicates a sweetheart. If in the dots can be found three in a row the suit will be accepted.

The person who reads the fortune must be possessed of a lively imagination and quick wit. It is wonderful how people may be interested in this way; but foolish as it may seem, the subject is one that attacts the curiosity of every one. Whenever a meal drags or conversation fails be sure that tea-cup prophecies will awaken the interest of all, and the hour will become a great success.

L. M.

THE EVOLUTION OF A BOOKCASE

The thing from which it was evolved was an old-fashioned, fall-leaf table of black walnut. For thirty years it had been my mother's kitchen work-table. I took it to a good workman who kept a shop for the manufacture and repair of furniture, and this is what he made of it:

A bookcase that is four feet eight inches high and three feet three inches wide. It rests upon casters. Directly above these casters in front is a carved piece, then a drawer six inches high and eleven inches deep. The drawer is opened by two pretty brass knobs. Above this is a shelf as wide as the drawer is deep, and then come three more shelves each nine inches wide. These shelves can be removed and replaced at different distances apart. The top forms another shelf. This is bordered by a neat molding, and around the back and ends is another piece of carving four inches high.

The back of the case is made of a cheap light wood and is stained. The shelves, excepting the lower one and the top, are made of the same material and have a border of the walnut. The ends of the case were not a part of the table, but were furnished by the workman. For the lumber he furnished, his work, the knobs and a rod for a curtain he charged me $5.50. For this sum I obtained not only a pretty and useful piece of furniture, but also a souvenir of the happy home-life of the past, a constant reminder of the gentle little mother who is waiting for me in the Great Beyond.

On the rod I hung two curtains of tapestry, a golden-brown groundwork overrun by a floral design in lighter shades. Let me tell you about the furnishings of the top of this same bookcase. It has been called my "baby show," and is much admired.

On the wall just above the top of the case hangs a copy of the well-known picture "After the Bath." This is twenty by eleven inches and is framed in a narrow white and gilt molding. Directly below this stands a picture-screen seven inches high. There are seven panels, each one containing the face of a dear baby who has just wakened from sleep. All round the faces are morning-glory vines and blossoms. Then in the corners and leaning against the ends, propped up by vases and other trifles, are the photographs of real babies—the dearly loved little ones of my friends and relatives. There are three of little Doris Hope, whose great-aunt I have the honor of being. One of these is taken with a little friend. Another is what I call her "saintly picture," being one in which the artist caught an expression as if baby's eyes were gazing back through the gates of the heaven from which she had so lately come. The third is "my little housemaid," for Doris holds a toy broom in one dimpled hand. You will see Gladys, Eva, Nellie, Allen, Lottie, Bernice and fat little Esther.

Hope Daring.

THE TWENTIETH-CENTURY GIRL

She's snappy and smart as the hottest red pepper,
In grace with the angels she's closely allied;
In lightness no queen of the turf can outstep her
Or hold up a head with more beautiful pride.
Her smile but reflects the bright spirit within her,
Her lip has a proud "don't you jolly me" curl,
And be she a saint or an innocent sinner,
There's none like the twentieth-century girl.

Her laugh flows as sweet as the ripple of streamlets,
Her song would the ear of an angel entrance;
Her eyes are so soft that they seem little dreamlets—
A challenge to love in their every glance.
She seems the real acme of female perfection,
In beauty's great diadem she is the pearl;
There's scarcely a flaw that demands a correction
Observed in the twentieth-century girl.

In shop or boudoir, in the parlor or kitchen,
She shines with the light of American grace;
She's all we could ask in her figure, and rich in
Dame Fortune's best dower, her beauty of face.
Her modesty sometimes seems tardy in action
When dancing in gaiety's maddening whirl,
And then her cute boldness seems but an attraction
Quite fitting the twentieth-century girl.

She has a quick tongue, and a ripe brain to feed it,
Discusses all questions from science to sport;
You offer advice, and she's ready to heed it,
Provided 'tis of an agreeable sort.
In satire she gives her opponents no quarter,
In love all her words have a syrupy purl;
In spats or in quarrels no fabled old Tartar
Could silence the twentieth-century girl.

Without her this earth would be but as the setting
Of gold with the beautiful gem torn away;
Its men-folk but growling old animals, fretting
In solitude's gloom for a twinkle of day.
Then here's a hurrah for the sparkling young jewel!
'Mid all of earth's treasures the daintiest pearl,
She sweetens our cup; she's the salt in life's gruel—
The peerless, chic twentieth-century girl.

—Denver Post.

A CHAPTER ON STRAWBERRIES

AS EACH season rolls round for this best of all fruits one and all housekeepers say, "Well, this year I mean to put up more strawberries than I did last year." The guest for whom I opened so many glasses said, "I think I never tasted such fine strawberries as these; and they seem to have retained their color and their form so well."

We all have some one thing in which we excel; mine is strawberries. It takes time and patience, as the accomplishment of all well-done things do, and if you are not willing to do just as I do don't expect the same results.

Always start the preserving season with a new pan or kettle; if it has been used for any kind of cooking it is not fit to use in preserving fruits. Then I never attempt over two quarts at a time, usually less. Get the firm, dark red berries; even if small these do better. While the large, light-colored berries do very well for use during the season, they do not put up nicely.

Pick the berries and put them in a sieve; sprinkle with water to remove the sand or dust, but handle them carefully. Allow them to drain while you put on to heat two even cupfuls or glassfuls of granulated sugar and one half glassful of water; when it comes to a boil put into the syrup the same measure of strawberries; after they are heated through allow them to boil ten minutes hard, gently shaking the pan from side to side to keep from burning, but never stir them; remove to a side table, and with a silver fork lift the strawberries into your cups or glasses, filling them three fourths full; let the syrup boil about five minutes longer, then pour over them, filling the glasses nearly full. When you are through they will have settled a little; then fill up again with any of the syrup you may have left. When cool pour melted paraffin over the top, and seal with papers on top.

During the hot summer weather keep them in an up-stairs closet where it is very warm, bringing them down-stairs when it gets cooler in the fall. Keeping jellies and preserves in the lower part of the house during the summer lays them liable to mold of all kinds. Do not leave them uncovered after they are cooled, as flies will get on them, and later in the year you will find them covered with tiny insects.

STRAWBERRY SHORTCAKE.—Of the many ways of making this I like the two following ways best: No. 1.—Make a good baking-powder biscuit-dough; divide it into two parts, and roll out one half inch thick to fit your pie-pan; brush the top of this with melted butter, and put another layer on top of this the same size; when it is baked the top half is easily removed to put on the strawberries. I prefer the strawberries well washed and put on whole, being first sprinkled well with sugar; eat with cream. No. 2.—Line a deep square tin with flake pie-crust and bake in a moderate oven to keep it white. When done fill with well-sugared berries and cover with whipped cream; serve cut in squares.

The best and most healthful way to eat the fresh berries is to serve them in saucers well dusted with powdered sugar and to use a fork. The addition of milk or cream frequently produces acidity of the stomach, and is never a very attractive dish when it is reduced to spoon victuals, some people even going so far as to make it absolutely a repulsive-looking dish.

A small spoonful of ice-cream served in the dish beside the berries will keep up the old-time luxurious dish called strawberries and cream.

B. K.

THE USEFUL HERBS

Sweet marjoram is used for flavoring various culinary preparations.

Pot-marigold flowers are used to flavor broths and soups.

Rosemary-leaves are used for garnishing and for flavoring and as a moth-preventive. The plant is used extensively in the manufacture of eau de Cologne, Hungary water and cosmetic vinegars.

Rue is used medicinally and as an ingredient of cosmetic vinegar. It is good for croup in fowls.

Tansy-leaves are sometimes chopped or bruised to put into certain puddings, or the juice alone is so employed. Its use is very ancient. It has tonic and other medicinal qualities.

Tarragon is said to be a native of Siberia. It is used as an ingredient in salads, soups, pickles and other dishes, particularly in French cookery.

Thyme leaves and young shoots are used in various dishes. The Romans used it to flavor cheese. A tea made from thyme is used for nervous headache. An infusion of thyme sweetened with honey or a little sugar and given in doses of from one to two teaspoonfuls every hour or two is considered an excellent remedy for whooping-cough.

Wormwood has tonic properties and is used in distillation to form that deadly liquor known as absinthe. Wormwood was used in the composition of ale and beer before hops usurped its place.

No herb-bed would be complete without lavender, which is grown for its peculiar lasting fragrance. From the flowers is prepared the well-known perfume lavender-water, used for toilet purposes, for which it is as greatly enjoyed as it was by the ancients in their baths. The flower-spikes when dried are placed among linen. The essential oil is in demand by druggists, perfumers and distillers, and is expensive.

Scientists have discovered that among the plants which exhale ozone are thyme, anise, fennel, mint and lavender, and they actually act as antiseptics, disinfectants and germicides. Thyme kills some species of microbes in thirty-five minutes. So it is found that aromatic herbs are not only delightful for their perfume, but beneficial to our health.

To preserve herbs, gather all kinds on a dry day just before or while in blossom. Tie in bundles and suspend them in a dry, airy place, and when dry wrap the medicinal ones in paper and keep them from the air. Those used in cookery should have the leaves picked off, then rubbed fine and sifted and kept in bottles well corked.

Dried herbs are combined in different proportions and kept ready for use, such as:

SEASONING FOR SOUPS.—Take one ounce each of lemon-peel, thyme, sweet marjoram and parsley; dry them, and make all the ingredients fine, then rub them through a sieve. Add one teaspoonful of celery-seed powdered, mix thoroughly, then bottle, and cork tightly. One teaspoonful of this seasoning is sufficient for one quart of soup.

SPICE-SALT.—An excellent spice-salt may be made by drying, powdering and mixing by repeated siftings the following ingredients: One ounce each of powdered thyme, bay-leaf and pepper, one half ounce each of rosemary, marjoram and cayenne pepper or powdered capsicums and two ounces each of powdered cloves and nutmeg. Add two ounces of salt, and keep the mixture in an air-tight vessel. One ounce of this mixture added to three pounds of stuffing or forcemeat of any kind makes a delicious seasoning.

FRANCATELLI'S AROMATIC SPICES FOR SEASONING.—Take of nutmegs and mace one ounce each, cloves and white peppercorns two ounces each, sweet basil, marjoram and thyme one ounce each, and one half ounce of bay-leaves. These herbs should be previously dried for the purpose. Roughly pound the spices, then place the whole of the above ingredients between two sheets of strong white paper, and after the sides have been twisted or folded over tightly, so as to prevent as much as possible the evaporation of the volatile properties of the herbs and spices, place them on a baking-sheet in the screen to become perfectly dry; they must then be pounded quickly, sifted through a fine hair-sieve, corked up tightly in a dry bottle and kept for use.

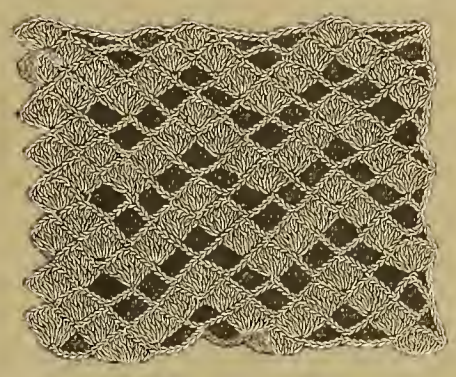
A FUMIGATING-POWDER.—Take equal parts of cascarilla-powder, camomile-flowers and anise-seed. Sprinkle a very little on a shovelful of hot coals, and carry the shovel into every part of the room to be fumigated.

COSMETIC VINEGAR.—Take of rosemary, wormwood, lavender, rue, sage and mint a large handful of each and place them in a stone jar, then turn over them four quarts of strong cider vinegar; cover closely, and keep near the fire for four days, then strain and add one ounce of powdered camphor gum. Bottle, and keep tightly corked. A little added to water makes a deliciously refreshing wash for the sick.

VIRGINIA REED.

WIDE ZIGZAG LACE

This is merely a combination of shells and loops. All shells are made into the d c between the loops, shells and loops, or two shells of the former row. Each shell consists of 5 t c except those at the lower edge of the lace; these have 6 t c. Each loop is of



5 ch, and is caught down at either end by a d c in top of either a loop or shell, as the case may be. Keeping these directions in mind, begin by making a chain of 45 stitches.

First row—Loop, shell, 2 loops, shell, 2 loops, shell; turn.

Second row—Loop, shell, loop, 2 shells, loop, 3 shells; turn.

Third row—3 d c in first 3 t c of shell, shell, loop, 2 shells, loop, 2 shells, loop; turn.

Fourth row—2 loops, shell, 2 loops, shell, 2 loops, shell; turn.

Fifth row—D c in first 4 t c of edge shell, 2 shells, 2 loops, shell, 2 loops, shell. This completes the pattern.

MAY MYRTLE COOK.

SET TOIL TO A TUNE

Set your toil to a tune, aye, a happy tune,
And sing as you hoe, my laddie;
Set your toil to a tune as sweet as the June,
And sing as you sew, my lassie.
For toil is pleasure
When set to measure
Of mystical rhythms and runes,
And commonplace toil
On fabric or soil
Can be set to a thousand tunes.

Set tunes to the stitches and sing as you sew,
Aye, sing while the lads, fair lassies,
Set tunes to the furrows and sing as they hoe,
Songs lie asleep in the grasses!
For the heart that sings
Hours fly on swift wings
Of mystical rune and rhythm,
And carry the tunes
Of a year of Junes,
And the heart of the toiler with 'em.

—Anna J. Grannis, in Skipped Stitches.

SUMMER MILLINERY

It has become so customary in recent years for fancy straws to be retailed by the yard for making up into hats and bonnets that straw-working has quite entered the province of the milliner, and a knowledge of it is consequently indispensable to her. The straw used for plaiting is the straw of wheat, grown for the purpose on an elevated soil, and is cut when the wheat-ear is only partially developed. The pipes of the upper joint only are used, and after having been assorted are passed through several processes of bleaching, splitting and steaming. The straws are then plaited whole or split, according to the fineness required in the complete article. Women are chiefly employed in all branches of the industry, the chief seat of which in England is Luton and Dunstable, in Bedfordshire. At Tuscany and Leghorn, in Italy, straw growing and plaiting is the staple industry, and from these towns come the finer quality of straw which we use.

There are two ways of working up straw; namely, one in the hand and the other over a foundation. A straw to be worked into shape in the hand must not be of a too "lacy" or fancy nature, but must be one whose straight edge is formed with fairly broad straw plaits, so that it has in it enough substance to support each row of straw in turn. When, however, the straw to be used is a very soft or fancy one, a light foundation must be made either in wire or stiff net and the straw stitched onto it.

We will deal with straw-working proper; namely, in the hand. Generally speaking the crown and brim will be worked up separately for either hat or bonnet and joined together when finished. A pattern shape is necessary, as the crown must be fitted over it frequently, while the brim must be temporarily fastened to the pattern in order to get the correct shape.

First, as to the brim. Take the length of straw and lightly tack it from right to left around the outside edge of the brim. Be careful that its edge is even with the edge of the shape, and that it lies gently on the pattern without being stretched or eased. If the straw is more than three fourths of an inch wide, cut it through at the back and neatly interlace the two ends, securing them with a few stitches. If, however, it be a narrower one, do not cut it off, but slant the first row into the second; the second row is then pinned to the first all around, and must be slightly stretched in so doing in order to preserve the inward curve toward the head.

When it has been satisfactorily fixed, so that it is quite even and the first row not unduly hidden in any part, the two may be sewn together. A fine or a medium sized cotton may be used, according to the straw in hand, but a coarse cotton must be avoided as being too harsh. The stitches must be small and out of sight on the right side and about one half inch long on the under side.

As each row is completed the next must be pinned and sewn in the same way, stretching it lightly each time along the outer edge, and slightly contracting the inner edge of the preceding row of the inner edge at the same time. Continue this till the brim is entirely covered, which in the case of a sailor-hat will require an even number of rows all around. Six yards of one-inch straw braid will be required to make a sailor-hat.

Although flowers form the principal part of summer trimmings, we will always find the necessity of some ribbon bows or rosettes. To make a nice rosette, take a lengthwise piece of chiffon seven inches wide and one hundred and forty-eight inches long, lay the two raw edges together and sheer with a double thread; make every stitch one half inch deep, and draw to six inches. Perhaps there is no form of trimming which appeals so strongly to the young milliner's mind as that of ribbon bows. To have acquired and mastered the art of making these is generally her highest ambition, and it must be said for her that it is a branch of millinery which she seldom tires of practising. Now, millinery bows can be made in a tremendous variety of shapes and sizes; but no matter what the shape or size may be, the bow itself is always made on the same general principle. It is formed with a succession of loops and ends, each starting from one given point, its shape being decided entirely by the length of the respective loops and the position in which they each are placed. The length of the loops is decided largely by the width of the ribbon, for it will be found undesirable to plait long loops or ends with narrow ribbon, while a wide ribbon will not be shown to advantage when formed into short loops.

When making a bow it is advisable to commence with an end rather than with a loop, wherever practicable. Take the ribbon in hand, and having decided upon the length for the first end plait the ribbon at that point in two or three even plaits, according to its width. Have ready a piece of fine, strong mounting-wire, and placing the end of it within one of the plaits bind it tightly round them. Next gage the length required for the first loop, plait the ribbon again evenly at that point, and allowing the loop to stand in the opposite direction to the end, bring the plaited portion back to the center and bind it tightly in with the mounting-wire. Repeat this until the bow is completed; finish with an end, which should run in the opposite direction to the first one. As each loop is fastened put the forefinger inside and lightly pull it to make it firm; never finger the double portion of a loop. Over the center or "root" of the bow, where all the loops meet, a small piece of ribbon must be stitched, so that an even number of loops and ends stand out on either side of it. This is called the "tie-over," and the bow is made quite neat by it. A ribbon rosette

is made entirely of loops, no ends being introduced at all. These are made of almost uniform size, and so managed that not only do they start and finish in one spot, but each must gradually fill up the space around it until one by one they close in and form a round clump, thus dispensing with a tie-over.

An Alsatian bow is generally made of two separate pieces of ribbon, the longest piece for the two under loops and the shorter piece for the two top loops. The ends of these are folded back to the center and the ribbon is plaited through with one big plait to each. They are then placed in position upon each other and stitched firmly through, being finally made neat by a large, broad tie-over. Throughout the process of bow-making three rules should be borne in mind. First, always allow each loop to finish on exactly the same spot as it commenced; second, bind each loop very firmly, but avoid using an unnecessary amount of wire or cotton; third, never finger a loop, unless a crushed bow is wished.

E. HARRINGTON.

GREATNESS

BY ELLA WHEELER WILCOX

There is but one great virtue to pursue,
One quality to seek—unselfishness.
In its four-syllabled environment
Lie all the other virtues; it contains
The world's redemption.

Put aside your creed,
Lay text-books on the shelf! Let dogmas go!
Pray much or little, but from dawn to dusk
And dusk to dawn think naught, say naught, do naught
To harm or trouble any living thing.
Climb without crowding others; there is room
For all God's creatures in the world he made.
Ask nothing for yourself but usefulness,
Since that embraces all the ways of peace.
Though glory weaves no laurels for your brow,
He who is always kind is more than great.

SOME HOMES ACROSS THE WAY

Spring is in the air and you choose a boon companion and leave brick-paved streets and city sounds as naturally as the birds fly northward. You cross a field or two, leave all trace of thoroughfares behind and turn into grassy foot-paths. Not half an hour's walk from the stir and traffic of a city street brings you into a life wild, picturesque, squalid in many instances, but full of human interest. You are in the very heart of the quarrymen's settlement.

Here is a poor attempt at a house built for the most part of discarded boiler-metal and such drift as the river has laid at the builder's feet. There is no sign of any attempt to do more than make a shelter, obeying the common instinct of man and beast. A child's playhouse built of discarded boards and dooryard trash could not be ruder in construction. The inevitable number of tow-headed children overflow the house, and a slatternly mother is not far away. There are picturesque sites along the old deserted quarry, but not even that natural advantage has been taken into account. Poverty, ignorance and drudgery have seemingly done their worst.

Not far away is another similarly constructed house; but wonder of wonders! a man is raking the bit of yard inclosed by the crudest sort of a fence, and over the fence are the dead stems of last year's morning-glory vines. There is no better material to work with than an inkling of a soul back of the material. You feel like taking off your hat to the man who is using one of his rare holidays to "tidy up" his place.

You had thought the days of cave-dwellers past, but quite by accident you come upon a door, long since off its hinges, in the face of a miniature mountain. It is not quite a dugout, nor yet a cellar, but a cross between the two. A bit of stovepipe runs up from the center of the one room and crowns the hilltop which serves as a roof. There are signs of a recent fire, and a mantel against the east wall proves conclusively that this has recently been a human abode and has only lately become the especial property of wild creatures or of such strollers as yourself. After all, it has its advantages, and sweeping and dusting and general housekeeping must have been reduced to their lowest terms. My lady could sit at her door and gaze upon the river or climb to her grassy roof and keep an eye down the stovepipe upon her culinary affairs.

A few rods away a foot-bridge leads to the very edge of the river and stops abruptly some thirty feet above the water. Investigation discloses what at first appears to be a brush-heap at the water's edge, but a bucket with a string suggests a well; sure enough, there is an opening down the center of the brush-heap, and a little hole dug into the mud supplies nobody knows how many families with water for drinking and cooking. They have never had their dreams troubled with the evils of unfiltered water.

Leaving the river you follow a rugged path and come upon a lonesome body of water, an old quarry, now a deep, quiet lake, full of huge rocks, and not a sound to disturb the stillness save the quacking of a small flock of ducks. Dense underbrush surrounds you; you might be in the mountains of North Carolina for all there is to remind you of the life you left an hour ago. Here and there, without order, without regard to outlook or convenience, are the queer little houses on the slopes that rise from the quarry. Over yonder is an old-fashioned log cabin, probably standing since the days when log cabins had to have strong doors and windows against prowling savage or wild beast. None of these present occupants ever built so well. The rugged hillsides and meager clearings are owned in common, or at least claimed, only by "squatters' sovereignty." There are few division-lines of any sort. Somebody is thrifty enough to raise chickens and ducks and geese, and occasionally an old horse or a cow surprises you at some sudden turn. Pasture is free for all, but few attain to such great wealth as a cow. Of course, a dog or two can be kept, three if the family happens to be very poor, but live stock is another matter when it comes to keeping a cow or a few pigs. Maybe the dumb sympathy and patience of the dogs are more to these poverty-crushed beings than you can well imagine.

As you clamber over rocks and uphill and downhill you see at last a most encouraging sight. Two or three houses on the outskirts of this strange settlement stand on well-chosen places. They are tiny wood structures, but they are whitewashed and have green shutters, and a garden-patch is fenced in at the back; thrift pervades the atmosphere. Here live the men and women who are making the best of their circumstances and who are slowly and painfully but surely rising from a life of absolute drudgery. You look in amazement and think of the difference between these and the first filthy pen you dignified by the name of house. Even as you look a well-dressed couple come along one of the crooked foot-paths, stooping here and there to get under a barb-wire fence, picking their way past fallen logs or overhanging branches. The father carries a little child, and from one of the neat frame houses not much larger than your father's hen-house two children run to meet them. It may be auntie and uncle coming for the day; it may be papa and mama, but whoever it is culture and refinement are penetrating to this out-of-the-way corner of the globe. It is a pretty sight to see the woman stoop to kiss the children and go hand in hand with them. You are glad not to go home as you came, but to carry this picture away with you. It will recur to you many times and bring you into closer touch with the humble people across the way, whose homes have told you volumes of the lives and aspirations of their occupants. After all, such a life is a thousand times better than crowded tenement-life in our cities, for fresh air and play-room are plentiful, and in a crude, often pitiable style the family is still the unit of the community instead of being quite crushed out from overcrowding. It is not impossible that from such a community a few of the sons and daughters will go out to make the world a better place to live in because of their share in its work.

BERTHA KNOWLTON.

HYGIENIC

Lemon-juice is the most wholesome of acids.

Apples and prunes are very healthful and make a delicious whip which is more hygienic than pie. It may be chilled if preferred.

Do not give very young children bananas, as they contain much starch. Juicy fruits which require little mastication are better.

Peanuts are wholesome if well masticated. Peanut soup is nutritious. Serve with it croutons—small cubes of bread buttered, and browned in the oven.

Serve the light soup for a meat dinner and the heavy for luncheon. Meat soup is stimulating, not nutritious. Hot tea or broth rests one and aids digestion, but does not nourish.

Use whole-wheat flour for the family bread, and teach the children that crusts are hygienic. For this reason biscuits should be made small, and gingerbread in gem-pans.

A vegetable oil is more wholesome than animal fat. A pure cotton-seed oil is desirable if one does not wish the olive flavor. Olive-oil is often adulterated with linseed or cotton-seed oil.

H. A. LUSK.

MAN AND HIS TROUBLES

At the Fathers' Congress, held in this city shortly after the adjournment of the Mothers' Congress, Fred Presbery delivered an address on "Man: How, When and Why Is He?" He said in part:

"Man that is born of woman is of few days and full of microbes. He hoppeth out of bed in the morning and his feet are pierced with the tack of disappointment. He walketh through the streets of the city in the pride and glory of his manhood, and slippeth on the banana-peel of misfortune and unjointeth his neck. He smoketh the cigar of contentment, and behold! it explodeth with a loud noise, for it was loaded. He slideth down the banister of life and encounters many slivers of torture. He lieth down to sleep at night and is stung by the mosquitoes of annoyance, and his frame is gnawed by the bed-bug of adversity.

"What is man but the blind worm of fate? Behold! he is impaled upon the hook of despair and furnishes bait for the Leviathan—death—in the fathomless ocean of time. Sorrow and travail follow him all the days of his life. In his infancy he is afflicted with the worms and colic, and in his old age he is afflicted with rheumatism and ingrowing toe-nails. He marryeth a cross-eyed woman because her father is rich, and findeth that she has not sense enough to fry the festive chuck-steak. His father-in-law then monkeyeth with options and goeth under.

"What is man but the tumor on the neck of existence? He playeth the races and betteth his all on the brown mare because he hath received a tip. The sorrel gelding winneth by a neck. Behold! he runneth for office, and the dead beat pulleth his leg ever and anon, and then voteth for the other man. He exalteth himself among his people and swelleth with pride, but when the votes are counted he findeth that his name is mud. He boasteth of his strength in Israel, but is beaten by a red-headed man from the Bloody Third. He goeth forth to breathe the fresh air and meditate upon the vanity of all earthly things, and is accosted by a bank-cashier with a sight draft for five hundred dollars. A political enemy lieth in wait for him in the market-place and walketh around him, crowing like a cock.

"Verily, man is nothing but a wart on the nose of nature—a bunion on the toe of time—a freckle on the face of the universe." Salt Lake Herald.

A BUSINESS MAN'S OPINION OF THE TOBACCO HABIT

I am most firmly convinced that no young man who hopes to win success in any life vocation calling for brains and energy and personal agreeableness can do a more unkind turn for himself than to acquire or retain any form of the tobacco habit. The other day a young fellow came into my office looking for a business position, but I wouldn't be enveloped daily in the two-for-a-nickel stench that young chap carried about with him even though it were joined to the business ability of a Rockefeller. In the eighteenth century every gentleman felt it incumbent upon him to go about with a box of snuff in his pocket, which noisome compound he was always stuffing with finger and thumb into his reeking nostrils. The nineteenth-century gentleman has dropped the snuff-box, but feels that he is not quite debonair unless he has a smoking roll of dried tobacco-leaves between his teeth. But I live in the faith that a twentieth-century gentleman is at hand who will find himself cleaner and sweeter, as well as more gentlemanly, with nothing of Walter Raleigh's weed about him anywhere. A happily increasing number of strong-minded young men have already started out on this road to a higher gentlemanhood, and they are likely to win the reward their good sense deserves.—Western Penman.

SCALLOPED SALSIFY

Choose the black salsify, or Scorzonera Hispanica, as this has the most pronounced oyster flavor (whence its American name of "oyster-plant"), and boil it very gently—without peeling it—for half an hour in acidulated salted water in a partially uncovered pan; then drain, peel, and slice into little rounds. Butter some china or silver shells, dust them with seasoned bread-crumbs, and fill with the salsify mixed with enough rich white sauce flavored with essence of anchovy, lemon-juice and coralline pepper to moisten it without making it pappy. Strew more bread-crumbs over the top, with two or three morsels of butter on each shell, and bake till nicely colored on the top.

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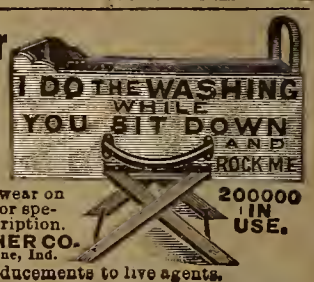

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OLD HYMNS

There's a lot of music in 'em—the hymns of long ago—
And when some gray-haired brother sings the ones I used to know,
I sorter want to take a hand! I think of days gone by—
"On Jordan's stormy banks I stand and cast a wistful eye!"

There's a lot of music in 'em—those dear, sweet hymns of old—
With visions bright of land of light, and shining streets of gold;
And I hear 'em singing, singing, where mem'ry dreaming stands,
"From Greenland's icy mountains to India's coral strands."

And so I love the old hymns, and when my time shall come,
Before the light has left me and my singing lips are dumb,
If I can hear 'em sing them then I'll pass without a sigh
To "Canaan's fair and happy land, where my possessions lie."

—The Cooking Club.

ARE THE CHILDREN SAFE?

THERE were some people living on the shore of the bay near Boston. Just back of the garden gate was a stake driven into the ground, to which a boat was fastened by a rope. When the tide was out the boat was on dry ground; but when the tide came in it would come up around the boat, and the children would get in and let the little wave teeter them this way and that. One day they stayed out at their play longer than usual. Their mother missed them and began to look for them. She went to her neighbor's house and asked, "Have you seen anything of my children?" "Yes," said the neighbor; "I saw them playing in the boat after the tide came up around it."

Then the mother ran down to the garden walk and looked for the boat, but it was gone. Then she knew that the children, playing in the boat, loosed the rope from the stake, and when the tide went out it carried them out upon the bay. She looked over the water, but could see nothing of them. Then she began to cry and wring her hands, and all the neighbors came running together, and everybody was in great excitement about those three little children who had been carried out to sea by the tide. They telegraphed to Boston, and men with rowboats came and pulled out upon the water as far as they could go, and looked in every direction; and the tugboats came steaming down, going out this way and that, but nobody could find the children. At last it began to grow dark, and the people built a great fire on the beach and stayed there all night. The mother was on her knees, with her hands clasped and her pale face lifted toward the skies, while her heart prayed in agony that God would take care of her little children in that boat away out upon the lone, dark sea. Early in the morning the people were looking off over the water, when an old sailor, whose eyes were sharper than those of the other people, saw a large ship coming in. He thought perhaps the crew had seen the little boat floating on the water in the night and had picked it up, so he waited till the ship came near. It was weather-beaten and looked as if it had met storms in coming all the way from India. He put his hands together and made a speaking-trumpet of them, so that his voice would go farther; then he sang out to the sailors on the great ship, "Any children on board?" Every one was as still as death, and the old sailor himself could almost hear his own heart beat while he waited for an answer. It came presently over the water, faint but clear, "Children all safe!"

Sure enough, in the night the great ship had picked up the little boat, and the children were all safe. You can hardly think how glad everybody was when they were brought home after their dangerous night out upon the sea. God means the old ship, his Church, to have all the little children safe on board. And I think our Savior as he sees the ship come in will call to us to know if we have the children safe on board; and we should then be able to say, "Yes, dear Lord, the children are all safe!"—Mrs. J. F. Willing, in the Central Christian Advocate.

FAITH

A convert once went to a missionary on the west coast of Africa, and said, "Teacher, what liars these sailors are! Why, one of them told me to-day that up in his country at the time of year when it is hottest down here water becomes solid, and they walk across the rivers just as we walk on the land. I can't believe any such yarns as that, and I told him so. Then he said, 'Go ask your teacher!'"

What should the missionary do? He could not explain to the untutored savage the law according to which liquids are solidified by cold. He could not even make him understand what cold was. And yet he must tell him a lie. The savage had faith in him, and believed the gospel story when he told it, and had accepted the unseen Christ as his Savior. So he replied, "Brother, what the sailor told you about water becoming ice is true. I have seen it. I have walked on it. This is a big world that we live in, and there are a great many things in the different parts of it. You must not think that it is everywhere just like it is here on the Gaboon."

The dusky listener looked at his teacher at first with wonder. He could hardly believe that he heard aright. Then, as one waking from a dream, he cried, "If you say it is so, it must be so. I know that you are wise and good. You would not, you could not, deceive me. Strange as it seems, unreasonable, incredible, I will doubt no longer. I am certain now that there is a place where water becomes ice and men can walk on it."

Now, that converted African was right in taking the word of the missionary. He had such faith in him that he could not doubt the truth of anything he taught, no matter how strange and even impossible it seemed. And yet there are men who will not believe God unless they can comprehend and demonstrate the truth of what he says. There is nothing so unreasonable as rationalism of conceited skeptics.—Christian Conservator.

VICTORY OF PRINCIPLE OVER SELFISHNESS

Apropos the flaunting of birds and wings in so many of the shop-windows just now comes a true and pretty story that helps the believers in the work of the Audubon Society to take new courage. It is of a man who, up to three years ago, was engaged in the business of wholesaling birds' feathers for millinery purposes—both in their natural shape and in a manufactured form. The business was a paying one, and the man who conducted it lived handsomely, according to his income. Then came a time when he saw the light and followed it, though it compelled his giving up the business. His beliefs and business conflicted—to one of them only could he give his countenance. And he chose his beliefs. The business was given up—not sold out to some one else—and the man who so denied himself in material things took a salaried position by which he was forced to cut down his living expenses to about one tenth of their former sum. But he had the comfort of his own convictions, and his wife and two daughters were with him heart and soul in the true consistency of his act.—The Manuscript.

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Ezra Jordan's Humble Lesson

BY ADA BENTWICK STONE

MRS. JORDAN excused her husband, and was afraid he wasn't just right in his mind, for he didn't used to be so irritable and unreasonable. When the children gave vent to their indignation and resentment she was greatly distressed. "You ought not to say such things about your father," she would reprove them, in her gentle, deprecating way. "I don't think he realizes."

Ezra had brought up his boys and girls to be "seen and not heard"—they had feared him and had not dared to be disrespectful, however great the provocation. But for some time now they had been growing more and more restive under his gibes and arbitrary exactions, and silence was fast becoming a moral impossibility.

On this particular morning Ezra had been more than usually surly and overbearing. The two boys had gone to their wood-chopping too wrathful for words, and they had been at work for fully half an hour before they found their speech.

"Five years more and I'll be twenty-one," Luke said then, as with quick, nervous strokes of the ax he trimmed out the maple he had just cut, "and then I'm out of this! If 'twa'n't for mother feeling so bad I'd light out right now, and 'twould be a mighty cold day when I came back! I can't suit father, no matter how hard I try! I duff in and work for all I'm worth, and he jaws because I don't work harder! It's nothing but jaw and telling us what great things he did when he was our age! I'm getting dead tired of it!"

Jim, who was two years younger than Luke, straightened up and pushed his cap back from his forehead impatiently. "I could stand that," he said; "but what riles me is his being so darned afraid we shall have a little fun once in a dog's age! Why, we can't so much as sit down to read for a minute but what it seems to give him a pain! And there was that one week of good skating in January—ice like glass, and a moon—and we didn't ask to go only evenings! But no, he must go and bring out that old pop-corn and make us shell it!"

"Yes; shell it for the hens!" Luke added, scornfully. "That corn is a fair sample of all his farming!" he went on. "He planted it too late, to begin with, and on starved land, so when frost came half the ears wa'n't filled out; then he let the jays have a hack at it, and after that the mice, and kept it two seasons, so 'twonld be dry enough to pop good, and now he's feeding it to them old mongrel hens that ain't laid an egg all winter! He's always talking poorhouse; and I guess he'll go there fast enough if he keeps on managing the way he does!"

"He don't try to make any money!" the younger brother put in. "Sometimes seems as if he tried all he could not to! He won't peddle anything—if folks want it they can come and get it! And when they do happen to be treats 'em as if they'd come on purpose to insult him! Seems as if he'd rather have things rot than to sell 'em!"

"Same's this wood's going to; 'tis too small to cut, anyway, and when 'twas swamping he was fooling with that old sled that ought to have been patched up in the fall, and now everything's thawed out and he can't get in here again till next winter!"

"We can pole it out, same's if 'twas hay!" the other suggested, ironically.

"And you can't tell him anything!" Luke continued. "He knows it all! Nobody else ain't any right to an opinion, even! And if you hint that his way don't seem to have turned out very well he's mad as blazes in no time! How can he do anything with no capital and handicapped as he's always been with a big family! Makes a fellow feel as if he was to blame for being born! I'm sure I didn't ask to be!"

Up at the house the two girls were finishing the morning dish-washing. Their faces were flushed, and they were working with nervous energy. Mrs. Jordan had gone on an errand to a neighbor's.

"Oh, these detestable milk and butter things!" Thirza, the elder daughter, exclaimed. "Those six cows don't give as much milk as one good cow ought to give, and the cream has to be churned for hours and hours before it will come! We could sell every drop of the milk at the door easy, but father decrees that it must be made into butter, so he can have the skim-milk to give to those old hogs that had eaten their heads off at the beginning of winter—and he knows they always do!"

"He does things like that," Ellen joined in, "and then lays the blame of his not succeeding in farming on his women-folks—we're such a burden on him—and you and mother work harder than any hired girls and don't get a sixth of their pay, and I have turned into the family purse a hundred and fifty dollars within a year that I've earned outside the family! I wish—"

"Sh—! Mother is coming."

Mrs. Jordan was a slight woman, with delicate features and an appealing expression. She glanced a little shrinkingly from one to the other of the girls, as if she suspected what they had been talking about and was worried by it.

"Did you get the pattern?" Ellen asked.

"Yes; and Mis' Allen has got her paint and paper and says you can begin on that front room any time. She was afraid you couldn't whitewash the ceiling, but I told her you could. And Mis' Bemis come in, and she wants you to sew for her next week, and mebbe the week after."

"Well, I'm glad," Ellen said, in a tone of satisfaction. "I'll help you out on the churning, and begin on Mrs. Allen's room right after dinner."

"Did your father say where he was going?" Mrs. Jordan asked, hesitatingly. "I saw him go by with the team while I was in at Mis' Allen's."

"No, he didn't tell," Thirza answered, in a constrained tone. "I had a letter to send, and I asked him if he was going to the village, but he said it was none of my business where he went."

Mrs. Jordan hurriedly changed the subject, and it was not again referred to during the forenoon.

It was considerably after twelve o'clock when Ezra returned. The boys had come up from the woods and were standing about the kitchen waiting, for no one thought of eating till the head of the house was ready.

Ezra Jordan was a tall, spare man, with hair and beard beginning to turn gray. His bushy, overhanging eyebrows gave to his face a stern look, and his eyes gleamed from beneath them with a certain fierceness. His wife glanced at him apprehensively as he took his place at the table. Ezra in the bosom of his family seemed to her imagination like a flaring torch in a powder-mill, and she dreaded the explosion that was sure to come sooner or later.

She became more nervous as the dinner progressed. Her own cheeks were flushed because of Ezra's unkind comment on the fare; Thirza was bending her head to hide the tears he had called forth; Ellen's eyes were dark with indignation, and the boys were smarting under some undeserved rebuke.

They had come to the dessert when Ezra, after one mouthful, dropped his knife and fork noisily and pushed his plate from him with an impatient gesture. "If there's one thing I can't stand it's apple pie with these little hard bunches in it!" he growled.

"If you don't like that kind of pie you had better not raise that kind of apples!" Ellen retorted, cuttingly.

"Oh, Ellen, hush!" her mother besought her, with a scared glance at her husband.

"I don't care!" Ellen persisted, rebelliously. "He's always grumbling about things that are his own fault!"

"How dare you speak like that?" her father blazed.

"Was there anything at the post-office, father?" Mrs. Jordan interposed, hastily.

"No, there wasn't anything at the post-office!"

"Is Mr. Hutchins coming pretty soon after the calf?" Mrs. Jordan asked again, trying to ward off the threatened outbreak.

"No, he ain't! I'm going to raise that calf!"

"Why, father!" Mrs. Jordan forgot herself in her dismay, and then bit her lip as she remembered.

"Well, what's the matter now?" he demanded, truculently.

"Why, that cow is the poorest one we've ever had, and it don't seem as if you'd want to raise her calf," she answered, meekly.

"What do you want me to do? We've got to raise our own cows, ain't we? We can't go and buy two-hundred-dollar registered Holsteins, can we?"

"You could sell this calf, and it wouldn't take but a little more to buy that one of Burrell's," ventured Luke.

"You tell me what I could do?" interrupted Ezra, in a fury. "I s'pose you think you'd do wonders if you had the running of things! I wish you could try it—and try it handicapped by a big family, as I've been all my life—a family that don't take no interest, a set of wasteful shirks—"

"Father!" Ellen's voice broke in, sharply, "you have no right to call us that! We haven't been wasteful nor shirked!"

"Oh, no, let you tell it!" he sneered.

"I don't think you have any call to find fault with your children, father." Gentle Mrs. Jordan spoke with quiet dignity, but the flush in her cheeks had deepened and her hand shook as she set down her tea-cup.

"No, I mustn't ever find any fault!" Ezra retorted, bitterly. "I'm to blame for everything! Nobody ever wastes anything in this house but me! Nobody here is lazy but me!" He stopped and brought his fist down on the table so suddenly and so heavily that the dishes danced. "If I didn't have anybody but myself to look out for, instead of having a wife and four grown-up children hanging about my neck and trying all the time to run things and spoiling 'em, and then finding fault with me—if I had my freedom I'd show you I wa'n't such a good-for-nothing fool as you all seem to think!"

"Why don't you take your freedom if you want it so bad?" Ellen asked, with spirit. "I guess we could stand it for a while," she added, sarcastically.

The angry color died out of Ezra's face and he became very pale. There was a hush about the table as he rose and began deliberately putting on the overcoat he had thrown on the wood-box when he came in.

"Seeing you are all so anxious to get rid of me I will take my freedom," he said, heavily. "When I've been gone a year or two p'rhaps you'll begin to appreciate what I've done and all I've had to contend with." Then, having buttoned his coat and put on his hat, he walked with head erect out of the room and out of the house.

The others had sat as if turned to stone, but at the closing of the door the spell was broken. Mrs. Jordan, with a sob, started up and ran after the departing man; Thirza, rising hastily, sought her room, her handkerchief pressed to her eyes; Ellen, not yet repentant, began making preparations for her afternoon's work; Luke went over to the window and stood staring at vacancy; Jim alone seemed unmoved. "I ain't going to let it spoil my appetite," he remarked, with a short laugh, as he helped himself to a second piece of pie.

Mrs. Jordan returned, weeping convulsively.

"I can't do anything with him!" she moaned. "He won't even promise to write! I don't think his mind can be right!"

"Don't you worry, mother," Luke said, putting his arm lovingly about her. "He came back the other time in less than a week when he went away, and he will this time—you see!"

When Ezra Jordan's pride at last broke down and he decided to return home it seemed to him as if he could not wait to get there. He thought despairingly of the hundreds of miles to be covered, and was in mortal fear lest some accident might befall him before the longed-for goal was reached. While his money lasted he rode; but it did not take him far on his way, and when it was gone he had to tramp. Sometimes he would pause to earn money to buy him food, for his soul recoiled from begging, and sometimes he was delayed by sheer weariness and the necessity for rest; so his progress was slow at the best.

But now he was near home—so near that he left the traveled road and struck across through familiar woodland and meadow, partly to escape observation, partly because it seemed the shorter way.

The July sunshine beat down on him; his clothes were ragged, his hair and beard unkempt, his face thin to emaciation. When he finally emerged from the woods at the back of the house—his house—and saw it across the fields and pastures tears sprang to his eyes and for a moment shut out the blessed vision.

He stumbled forward over the rocky ground of the pasture and up the lane. He reached the back door; his hand was on the latch. Alas! the door was locked.

Ezra stood for a minute overwhelmed with disappointment. He heard the distant church-bells ringing and then remembered it was Sunday. They had doubtless all gone to afternoon meeting, and would perhaps stop at his sister's afterward and not get home till toward night.

He bethought him of the old bulk-head; it had been easy to get in there. He hurried around to the east side of the house. There was a strong, new bulk-head, but it was securely fastened.

A sudden fear smote Ezra. Perhaps the farm was no longer his! Why hadn't he thought of that before? He noticed now for the first time that the house was newly painted, and he remembered how, many years ago, his wife and the girls had saved money, a little at a time, for this same purpose, and how he had said the old clapboards would soak up a fortune in paint and had taken the money and bought a stump-puller. There were screens in all the windows, too, and that was another thing he had always set his foot against; he had said he would not have his air strained.

He turned from the house and stared about him. What a big garden! It stretched east and south, covering nearly the whole house-field. When he went away this ground had been covered with only a scant growth of grass and weeds, and he had maintained that it could never be plowed because of the many stones just beneath the surface; but it had been plowed and planted to all sorts of garden-truck which seemed to be flourishing.

He followed the garden down and saw that the hen-houses had been moved into the west pasture, with large yards fenced in, and that the fowls were thoroughbred and handsome.

He continued on over the farm. Everywhere were signs of thrift. The land he had cleared of stumps and then let lie fallow was set partly to strawberries, the rest to sweet-corn. One of the fields had been broken up and planted to currants and raspberries, and a small orchard had been started. Most of the hay had been gotten in, but the hay-cocks left and the stubble showed there had been a heavy crop. In the north pasture were six fine-looking cows, some young stock and a horse.

When Ezra returned to the house he went around to the front of it. Here, too, there were improvements; shrubs, a flower-bed, and the old stone wall he had refused to have removed in the old days carted away. The front door-step had been broadened and widened, to form a piazza, and this was partly inclosed with latticework, over which rioted a luxuriant vine with fragrant blossoms. Vines near the house was another thing he had objected to, on the score that they rotted the clapboards and shingles.

He stepped upon the piazza. In the recess on one side was a rocking-chair, and Ezra sank into it. He suddenly felt very weary. He would rest here, hidden from view unless one approached the door itself, and when the family returned he would inquire about his own family, for he was now very sure that the place had passed into other hands.

It was not long before the sound of voices broke in upon his bitter reflections, and he fancied he heard the back door unlocked. A little later he heard the voices and the clatter of milk-pails going in the direction of the barn. He made a motion to rise, then sank back again. There was no hurry—and he was so tired.

He heard one of the voices calling the cows, and then he became aware that a horse and a two-seated open wagon were coming down the road. He leaned forward to get a better view through the vines.

The wagon came nearer. Ezra held his breath and almost fell out of the chair in his excitement. Could it be? Yes, there was no doubting it; the woman on the back seat was his wife! And the girls were Thirza and Ellen.

But who was the young man? It couldn't be Luke; Luke was light! Why, how forgetful he was. In four years Jim would have grown up. It was Jim, of course! He could see the family look now.

The wagon drove into the side yard, and Ezra twisted himself about to peer through the lattice. One of the men—perhaps Luke—shouted some laughing remark from the barn door. They all seemed in excellent spirits, Ezra thought. Even his wife laughed, as Jim reached up and lifted her bodily from the wagon. He saw her plainly for an instant, and she looked to him younger and happier than when he went away. The girls, too, were talking and laughing as they all walked toward the back door. Ezra never remembered them so happy and free and merry.

Soon their voices could be heard inside the house. Windows were opened wide, and some one passing hastily through the front entry set open the outside door, but did not see Ezra, who shrank into the shadow.

Then came the clatter of dishes and the clinking of silverware, and Ezra knew the table was being laid for supper. The fragrant smell of coffee cooking drifted to him through the house as he sat solitary.

And now Thirza was calling, "Come, mother, Ellen; the boys have milked and supper is ready!" And Ezra heard his wife's answer so near it made him start. She must have been sitting by the window next the door, only a few feet away. Her chair creaked a little as she rose, and he listened to her footsteps as they receded.

Now he could go without being observed. He got up stiffly. His head felt strangely light, and he staggered as he stepped down from the piazza and started across the yard.

He had not reached the road when he heard a voice, hardly above a whisper, but excited and peremptory. "Mother, come here, quick!" And then, "Oh, mother, doesn't that look like—isn't that—father?"

He heard the screen-door open and slam to, then quick steps, and he quickened his own pace.

They were out of sight of the windows of the house—a clump of lilac-bushes intervening—when his wife overtook him. She was walking now, and as she came opposite she eyed him narrowly, but he would not turn his head to look at her.

"Ezra?" she said, doubtfully; then, joyfully, exultantly, pitifully, "Ezra!" and caught him by the arm. "Where are you going, Ezra?" she pleaded.

He shook her off almost roughly. "I'm going to the nearest pond!" he cried, hoarsely. "I ain't wanted—nowhere!"

She stood in front of him, barring his path, and they looked into each other's eyes; the hopeless misery she saw in his made her lips tremble. She clung to him again. "Ezra, come back!" she entreated. "We all want you!"

"It's a lie!" he cried, fiercely. "Nobody wants me! I'm cursed of God and man!" And again he pushed her aside and started on.

She kept along at his side. "If you're going to drown yourself, Ezra, I'm going to drown with you!" Her tone was quiet, but there was a settled determination in it. He stopped and looked at her.

As he hesitated a strange faintness seized him; the sunshine seemed changed to black darkness, the summer noises to dead silence, and he felt himself falling.

The next thing he knew he was lying in bed in an airy room, the last rays of sunset were reflected on the wall, and his wife was bending over him.

"Where am I?" he asked, faintly.

"In the northeast chamber."

He sighed, and closed his eyes. It seemed but a moment when he opened them again, but he knew it must be longer, for it was evening now and his wife held in her hands a bowl of broth that sent forth a delicious steam. She helped him to sit up, placing pillows and bolsters behind his back, and when she saw he was too weak to feed himself she fed him. Then she took away some of the pillows from behind him and eased him down gently.

For many days Ezra gave up trying to think, and slept, only rousing occasionally to eat and then sinking off again. There was no need for anxiety about work or food or shelter, and everything was so clean and sweet and peaceful; it was rest—absolute rest! But after some days he found he could not sleep all the time and he began to notice and listen and think.

"Don't you want the children to come in and see you, and the neighbors?" his wife asked.

"No; oh, no!" he cried, in a panic. "I don't want to see 'em—I don't want to see nobody! Have they—the children—been in here?" he asked, hesitatingly, when his excitement had died down.

"Along at the first, when you were sleeping so much," she told him. "It was Luke and Jim that brought you in and undressed you that first night."

The dislike of seeing people did not extend to his wife. Ezra's eyes followed her about whenever she was in the room, and one day he wanted to know if she couldn't bring her sewing up there. So thereafter she took her needlework up-stairs to do. Though he seemed to wish to have her near him, he talked little, and often half an hour would pass without a word being spoken.

"There are three boys?" he said one day, inquiringly.

"Yes; the other one is John Lawson's boy—Amos, you know. We needed more help, and he wanted to come, so we hired him. I don't know where you'd find a young man with better principles or more likable. I s'pose he'll be our son-in-law some time, Ezra," she added, shyly.

"Thirza?" he asked.

"No; Ellen."

"How pleasant they always be," he said, half to himself, another day, as his wife was tidying the room and a burst of laughter floated up from below.

At another time there was a fly buzzing around him, and she chased it up till she caught and killed it. "I used to let you be plagued with millions of 'em and wouldn't let you shut 'em out, and you won't let me be plagued with just one," he said, and his voice trembled.

She rested her work-roughened hand for an instant on his hair. "You didn't think, Ezra."

"No, I didn't think," he repeated after her, and sighed.

"I—I wish you wouldn't go to so much trouble for me, Eunice," he said again, when she had brought up some delicacy in the middle of the afternoon to tempt his appetite.

"Why, Ezra, I like to." And though she laughed the tears started to her eyes at this unusual thoughtfulness.

So Ezra lay there day after day, not wanting to see any one, and though he gained in strength showed no desire to leave his bed. He grew more silent, and the brooding, despairing look in his eyes deepened. His wife yearned over him, longing to give him comfort; but the experience of the old days warned her against questioning him or offering sympathy. She could only wait, in the hope that in time he would give her his confidence.

One night she was unable to sleep; but she lay very still, for fear of disturbing Ezra, for he, too, was wakeful.

At length he gave a deep sigh that was almost a groan, and she could keep silent no longer. "What is it, Ezra?" she asked.

"I didn't know you was awake," he returned, evasively.

"Don't you feel well?" she persisted.

"Yes, too well," he answered, a little shortly. Then, in a sudden burst, "I hoped I was a-going to die! Why didn't you let me that day I come home, Eunice? It would 'a' been better for everybody! I ain't no use in the world! I'm a failure—a complete failure! I hadn't no business ever to be born!"

"If you hadn't ought to been born, Ezra, the Lord wouldn't let you been."

"Well, it's rather tough that he should let me come into the world and not give me no brains!"

"Why, Ezra!"

"Well, see how it's come out! I went off and didn't leave you nothing but an old run-down farm, and then, with nobody but myself to look out for, I come back in a little over four years poor'n I went and find you've all prospered—prospered beyond all belief! Don't that show I ain't got no brains?"

"No, Ezra, no! You've got as much brains as the rest of us. That ain't where the trouble was."

"Where was it, then?"

"It wasn't your head that kept you from getting on, Ezra, but your heart. It wasn't wisdom that was lacking, but—love!"

"I don't see how you make that out, Eunice," he said, skeptically.

"I'll try to explain what I mean," she answered, speaking slowly. "You see, in the first place, I love the children—I really love them. I try to make 'em happy all I can—happy in their way, not mine—though, of course, I want it to be a good way. I don't know whether it's that or because I've talked to 'em so much about it, but somehow they all feel the same way toward me and toward each other. So, you see, there ain't any quarreling or fault-finding, and we all pull together. Then, you know, we're commanded to love our neighbor, and that makes us try to do the very best we can for the people we sell things to—give 'em the very best milk and eggs and fruit and vegetables, and accommodate 'em every way we can. Somehow or other, that makes us love our work and be interested in it and be trying all the time to find better ways of doing it. And then, though that ain't what we was aiming at, prosperity comes."

He was silent for a little, then said, with something of the old injured tone, "The children never cared anything about me!"

"Ezra," she returned, earnestly, "did you ever give them a chance to? Did you really ever care anything about them?"

He did not answer, and she said no more.

All the next day he seemed very thoughtful, but he did not renew the subject till night. When the light had been put out and the room was dark he spoke.

"I've been thinking over what you said, Eunice," he began. "I didn't think there was anything in it first, but I guess it pretty near tells the whole story, after all. I haven't succeeded because I didn't love nobody but myself. I see it now. In all my tramping, these four years past, the reason I didn't keep the jobs I got was just because I couldn't see no side but my own. And I thought I knew everything, and everybody that didn't think just as I did was fools. But I've learned a humble lesson, Eunice, and there ain't no self-conceit left in me."

There was a silence, and when he began again it was diffidently and with a pathetic wistfulness.

"Eunice?"

"Yes, Ezra?"

"You said I didn't give the children no chance to ever care anything about me. Is—do you s'pose it's too late to begin now? Don't they despise me too much?"

"Why, no, indeed, Ezra! Every one of 'em feels kind toward you. They all ask how you are every day, and want to know when I s'pose you'll be down; and they think of things that p'rhaps you'd like to eat; and the boys are anxious to show you over the farm; and Ellen she wants you to get acquainted with Amos. Why, they don't none of 'em have no hard feelings against you at all. There's nothing in the world to hinder your beginning all over new with 'em."

"I'm sixty, Eunice; ain't that too old to think of turning over a new leaf?"

"We ain't never too old for that, Ezra. It's what the Lord expects of us and gives us experiences for. He wouldn't take so much trouble to chasten us if he knew we was going to keep on in the same old ways."

Another little pause, and then he said, tremulously, "You've been a good wife to me, Eunice."

He was not awake when she rose the next morning, but when she returned an hour later with his breakfast she found him up and dressed. There was a new look on his face.

"Why, Ezra!" she exclaimed.

"I'm coming down to breakfast with the rest of you," he said. "I ain't going to make you bring any more victuals up them stairs for me, Eunice. Here, let me take the tray. I guess I can carry it down and save you that little, after all you've done for me."

Miss Dunning

BY FRANK H. SWEET

STRANGELY enough, it had never come home to Elizabeth Dunning that she was an old maid until this morning. She had been trimming the unruly arms of a clambering Seven Sisters when pretty Susie Wrenn came tripping by on her way to the mail.

"Oh, Miss Dunnin'," the girl had called, slackening her pace a little as she neared the gate, "ma wants to know if she can borrow your cake-tins this mornin'? We're expectin' company an' we've got only one."

"Why, certainly, Susie; you can have them and welcome. Stop on your way back from the mail."

"Thank you," moving on a little and then lingering as though wishing to say more, but hardly knowing how to proceed. "Them's awful nice roses you've got."

"Yes, they are nice," assented Miss Dunning, clipping off a handful and offering them across the fence. "You must come in some morning and look at my bed of teas and at my hedge of Jacks." Then she smiled encouragingly into the blushing, upturned face. "Now, what is it, Susie?" she asked. "You have something else to tell me."

"Oh, it's nothin' much," protested the girl, bashfully, but with eyes and cheeks which belied her words. "You see, I've told only ma so far, an' now it seems I must tell you next."

"Of course!" with affected indignation. "Did I not know you as a baby in long clothes, and have I not been your Sunday-school teacher more than ten years? Certainly you must tell me!"

But still the girl hesitated, looking at her feet and down the street and across the fence to the pretty cottage, whose verandas were embowered with clambering roses and honeysuckles. At last she broke into a frank, merry laugh.

"What a fool I am, Miss Dunnin'!" she cried. "It's only that I'm goin' to be married. I'll stop for the tins comin' back." And she ran lightly down the sidewalk, pausing only for a moment to glance back over her shoulder. "It's Mr. Gray," she called, with something that was almost exultation in her voice; "an' he's real nice, even if I do say it."

Miss Dunning's face had been full of the kindliest interest, and its expression did not change now as she watched the girl speed buoyantly down the street. But her long, taper fingers trembled slightly as they left the paling and returned to the rose-clipping. Long years ago—she did not care to remember how many—she had tripped down the sidewalk like that and had been pretty and vivacious and hopeful. And with her in those days it had also been Mr. Gray, and she, too, had thought him real nice.

Snip! snap! snip! went the pruning-shears, and from a branch of the great elm overhead came down the mellow love-song of an oriole to his mate in a swaying nest near by. Butterflies chased each other in bewildering circles above the flower-beds, and a gray squirrel whisked down the trunk of the elm and up the gray garden-skirt to the shoulder of Miss Dunning. She stopped her clipping a moment to stroke the soft fur and look into the bright eyes that were asking so obviously for recognition. They, too, were friends of long standing.

But the rose-bushes were waiting, and presently she lifted the squirrel in her hand and replaced him carefully upon the ground. Only for an instant, however, for with a curious little bark of expostulation he made a quick spring and was back on her shoulder. Again she essayed to put him down, but he chattered so appealingly that she relented and dropped her pruning-shears instead. A cozy garden-seat was but a few yards away, and she walked to it and sat down, and the squirrel, as though it was all of his own planning, dropped lightly into her lap, where he curled up and went to sleep.

And still the golden oriole sang on, oblivious of all but his mate and the rapture of his own music. Miss Dunning listened with a tender smile on her face. Had she chosen for the best? She thought so unflinchingly, even when her heart-strings were crying for redress. He had succeeded wonderfully, as he could not possibly have done had there been a weight to clog his flight. Yes, there had been no other way.

She stroked the squirrel tremulously, and he wakened enough to play with her finger for a moment and then was again lost in sleep. The house-dog came down from the veranda and took a position beside her; not to sleep, but to wag his tail and gaze up into her face with a satisfied love in his big brown eyes. Other birds beside the oriole were singing about her, the odors of many flowers came from various points of the garden, and the deep vine-covered verandas looked very inviting and homelike. Yes, she had chosen for the best.

The returning footsteps of the young girl broke in upon her meditation, and she went forward to meet her with the same loving eyes and tender smile which had made her the older sister and adviser of all the young girls in the neighborhood. The cake-tins were procured, with many bits of advice and cheery gossip, and sympathetic and congratulatory remarks were made about the new joy and obligation that were coming into the perspective of the young girl's life; and yet Susie lingered, smelling of the roses and caressing the squirrel and dog, and occasionally moving forward a few steps, only to find a new excuse of flowers or birds to encourage her return. This little world of beauty and tranquillity was a place by itself, not easy to relinquish or leave behind.

But at last the gate clicked reluctantly, and the now softened footsteps of the young girl grew fainter up the street until they were lost in the sudden whirr of racing bicycles. Miss Dunning returned to her rose-bushes and gazed down absently at the pruning-shears; then she turned and walked back to the shade of her garden-seat and to her unaccustomed retrospection, and the dog returned to his loving watchfulness at her side, and the squirrel to his slumber in her lap.

Yes, she was an old maid; Susie's approaching marriage emphasized that beyond question of doubt. Even Susie's mother had once been her Sunday-school scholar, and Susie's father had been a little neighboring boy whom she had sometimes dragged to school on her sled. Surely it must be a long time ago, and yet it seemed such a little while. She would scarcely have realized it but for Susie's announcement and for another bit of indubitable evidence which made her lips grow tremulous. He had planted the maple under which she was sitting, and which they had found as a little sapling in the woods. Now it shaded the ground for many yards around, and its trunk was as large as a man's body.

At that time Alfred Gray had been teller in the village bank, but with ability and intellect which rose superior to the circumscribed area. A tender, reminiscent look came into her eyes as she thought of their congenial tastes. They had liked the same books and the same walks and the same bits of landscape; they had had the same broad, loving charity for the world and its foibles. It had seemed almost wonderful that they two had come together, so alike in all their dreamings and ambitions.

And then had come that great opportunity, which had seemed specially created for Alfred's advancement, and which would carry him on to a pinnacle of success of which neither of them had ever dreamed. But to attain its utmost height he must go without clog or impediment of any sort to retard his progress.

She was glad to remember that she had impetuously told him to go, with unflinching eyes and lips; and she was glad to remember, also, that he had looked at her with expostulation and entreaty, and that he had flatly refused to consider so cold-blooded a thing, and then had flamed out and declared she did not love him as he did her, and that he would follow her command and make ambition the rule of his life. She had not faltered, even when he left her in anger and did not communicate with her through long years of struggle and success. His work was perhaps even dearer to her than to him, and it was her determination that had rendered it possible. Had she hesitated in the least he would not have gone, and with her his success could only have been the moderate success of other men.

She had not been able to keep up with his progress very closely, for even a brilliant career on the other side of the world only comes back in stray paragraphs. But she knew the success was there, and that it was the kind they had dreamed of. Never among all the scraps which she had preserved had she found one that spoke slightingly of the man or in anything but the highest praise of his work. Truly it was well worth the sacrifice! The world was better for his being, and the work was hers as well as his.

Long ago she had given up all thought of their ever being to each other more than they had been; perhaps they would never see one another again in this world. But what then? Were they not working together in mind and heart, even though the world divided them? But sometimes she thought that his part was the easier, for he was working with his hands and in the face of positive results, while she must be content with her waiting and trusting. Even when she learned that he was coming home, renowned for his intellect and noble work, she looked forward to meeting him with unquestioning gladness. It was not so much her youth returning as it was the great success of her planning coming back for her approval and commendation. Their youth was very near and dear, but it was something that was past and laid away in the lavender and rose leaves of her memory.

She had always remembered him as the young man who had gone away from her, strong, erect and with black, curling hair thrust carelessly back from his forehead; now, looking clearly into the past through the revelation which had just come to her, and without the glamour of her own love to idealize him, she tried to imagine how this man who had been hers, but was now another's, might appear. He was older than she by two years—that meant he was forty-one. Here she broke resolutely from her retrospection. Why was she so foolish? Forty-one was young for a man, even as thirty-nine was old for a woman. Of course, he was just the right age for pretty, simple-minded Susie, and would have the clear judgment and experience which she lacked; and, of course, a strong, beauty-loving man, who had been so long away from the world, would prefer a pretty young girl to a faded old maid. But as she walked resolutely to the house, forgetting alike the squirrel and dog and pruning-shears, there was for the first time a hard, bitter pain at her heart. She could spare him to greater usefulness, to a noble ambition, but this—ah, this was different!

And yet when she came from her room an hour later there was no sign of disquiet in her brown eyes or trace of agitation on the delicate flush of her cheeks. The rest of the unruly arms of the Seven Sisters were cut away or trained toward usefulness, and she was standing with her head tipped slightly to one side in contemplation of her work when again came the familiar tap, tap, tap down the sidewalk, ending with the sharp click of her gate-latch.

"Here I am again, Miss Dunnin'," a blithe voice called; "beggin' for roses this time. The cows have eaten ours off clean, an' we must have a good spread for our company. I don't know what the place would do without your rose-garden an' lilies an' strawberry-bed—or we girls, for that matter, without you," catching a hand and raising it to her lips with a pretty, graceful caress that caused the older woman to throw an arm across the young girl's shoulder in sudden tenderness. "We often speak about our Miss Dunnin', just as if you really and truly belonged to us."

A cluster of freshly opened roses caught her attention, and she ran forward to smell of them, and then engaged in a romp of tag with the squirrel, who evidently enjoyed the excitement of the game. At length she came back with flushed face and sparkling eyes.

"Oh, I forgot to tell you, Miss Dunnin'!" she cried, roguishly; "he's come!"

Miss Dunning's hand closed a little more closely upon the pruning-shears, but her face was calm, even smiling.

"I thought he was not expected until next week?" she observed. "At least that is what the papers said."

"Oh, I don't know," doubtfully; "we don't have the paper. But I think Charlie was expectin' him before next week—Charlie's my brother-in-law, you know, and owns that pretty house next the river. Mr. Gray's goin' to stay with him. They used to know each other. But there! I'd better get the roses an' be goin'. They're all comin' up this evenin', an' ma said for me to hurry back an' get through with my fixin' an' fussin'. An' say, Miss Dunnin', if you don't mind, I'd like to bring him to see you 'fore he goes," looking up with a roguish, pleading expression on her pretty baby face.

"Of course," the strained lips forced themselves to say, "you must bring him, by all means."

But after the girl's departure Miss Dunning left the roses and hurried to the seclusion of her room. Bring him to her, this young girl who had been but a baby when they two had been so much to each other? What did it mean? And he had not even written to her or in any way announced his coming.

The next day was spent on the front veranda, under a mixed pretense of reading and playing with the squirrel and dog and idly touching the strings of the guitar, which was another of her hobbies. But through it all her mind was elsewhere, listening for familiar footsteps, recalling incidents which had been stored in her memory, and sending stealthy, eager glances to that point of the road at which Susie first appeared. She was getting old, she told herself, weakly; this lack of self-control was proof of it. But still she sat there and listened and thought and watched. This man's life and work had been hers too long for separation; every day the joy of them had been with her and had added new beauty to the roses and household duties. A little while and it would all have to be put away forever, and then there would be for her but the memory of the past and the work which had been done.

But the day wore away and he did not come, and then the next and the next. Through all these years her eyes had retained their brightness, and her cheeks had lost but little of the delicate bloom of their youth. But now her face grew strained and piteous, and dark circles began to inclose her eyes. If only he had gone by once and lifted his hat or had given some sign of remembrance or recognition. But no, he did not even pass along her sidewalk or in any way evince a consciousness of her existence. On the fourth day Susie hurried by on her way to the post-office, but was apparently too much occupied with her thoughts to glance toward the rose-bushes or vine-inclosed veranda. Miss Dunning watched her until she disappeared behind a hedge of altheas, and then turned hastily in search of some work to occupy her tremulous fingers. Evidently Susie was too happy to divide her thoughts, and probably he was happy, too; but somehow, for the first time in her life, Miss Dunning could not bring herself into thorough sympathy with the happiness of others.

One day, as she sat there with the squirrel in her lap and her eyes fixed upon that last visible point of the street before it was shut out by the roses, a firm, eager step came up the sidewalk from the opposite direction. But she did not notice until her gate-latch clicked. Then she turned inquiringly.

She knew him, for the years had brought but a stronger step and nobler carriage, with perhaps a too liberal sprinkling of gray hair, which she could discern even from the veranda. She was conscious of a curious thrill of awe and tenderness as she rose from her chair, for even in that brief instant she remembered that there was not a single gray intruder among her own soft hair, and

his she associated with the work which had conquered obstacles and adversity.

There was no reserve or ceremony in her movements, and by the time he had closed the gate she was half way down the walk. But it was as an older sister greeting an older brother hero, or rather as one who has sent her best thoughts out to conquer the world and was now eager to wreathe them with the laurel of victory.

"Alfred!" she said, as she went forward with extended hands.

"Elizabeth!" he said, and then bent forward and touched his lips to her forehead. And she received the kiss with her eyes looking straight into his and with only the faintest possible color stealing into her cheeks. It was not a wrong to her girlish admirer, nor an act of presumption or breach of faith on his part. It was merely a seal of the success of their twenty years of joint labor.

"Come up to the veranda, Alfred," she said, with her eyes full of frank welcome. "I want to hear all about it. Of course, I know in a fragmentary way, but it will seem new and more real from your lips."

And he told her, sitting in his old place behind the honeysuckle, with the swaying sprays sending alternate lines of sunlight and shade across his face in the same old way; and she listened with eyes full and lips half parted, and with her head nodding commendation or sympathy from time to time. It was a story of heroism and triumph, told in a straightforward, matter-of-fact way, without egotism or self-depreciation, knowing it was her right to have it entire, even as he had lived it.

"But it is good to be home again, Elizabeth," he concluded; "the memory of these flowers and their owner has been with me through all the twenty years, and many times have I been on the point of giving up and returning. And indeed," a trace of reserve coming into his voice, "I might have done so but for what you said and the look you gave me when we last stood together among your roses. I knew I could only return to the sentence of a deserter who has forsaken his colors." She was looking at him in a wondering, startled way now, with the color coming softly into her face.

"But—you never wrote, Alfred!"

"Yes, twice; but it was a wild country, and perhaps the letters were lost."

"I never received them!" then, "But you have been in the place a week, Alfred, and only just called!"

He looked puzzled.

"I came in on the train an hour ago, Elizabeth, and would have been here before but for a complication over a telegram. It seems there is another man of the same name in town."

"But Susie?"

He raised his hand impatiently.

"Never mind Susie. I have gone through my probation and have done my work with all the strength God gave me. Now I have come ten thousand miles for my reward—for you! If there is more work, bid me do it; but for charity's sake do not refuse your companionship in the labor!"

She was not looking at him now. Her heart was too full for speech, almost for thought. The squirrel ran down a pillar of the veranda and sought her lap, and the oriole lifted up his voice in a sudden ecstasy of song. She stroked the one tremulously and looked at the other with the new tenderness of the great joy that had come to her.

Then the gate clicked and she roused herself with an effort. A young man whom she did not know stood before her, and with him was Susie.

"I've brought him at last, Miss Dunnin'," the girl cried, merrily; "but I just had to drag him, he's so bashful. Mr. Gray, this is the Sunday-school teacher I've told you about." Then, disregarding further formality and with bubbling gladness in her voice, "An', oh, say, Miss Dunnin', we've coaxed him to stay with us for good and all. He's goin' to open a grocery next the post-office." Here she caught sight of the gray-haired, soldierly figure in the background and stopped in sudden confusion.

"This is Mr. Gray, too, Susie," Miss Dunning said, with something in her voice which the girl could not understand; "and we, too, are—going to be married!"

A HISTORIC GAME OF BALL

The particular game of which I write was played on June 4, 1763, at Fort Michilimackinac; the date is that of the renowned Indian uprising known as "Pontiac's conspiracy."

The fort was the most isolated of any of the English frontier posts, standing at the northern extremity of the southern peninsula of Michigan, just where the straits of Mackinac widen into Lake Huron. The province of Michilimackinac was the very heart of the Indian country, the principal tribes being the Sacs, Ojibways, Ottawas and Hurons.

The previous summer Pontiac, the daring chieftain of the Ottawas, had sent his swift-footed runners to every camp and village of the Northwest bearing the belt of purple and black wampum and the tomahawk stained red, notifying all that a grand council was to be held soon on the banks of the river Ecorse, near Detroit. The war-tokens were seized with enthusiasm, and all the tribes were represented in the council held at the appointed place in April, 1763, which pledged itself to exterminate the English and restore the red men to their former power as rulers in the land.

On the first days of June the Indians appeared at Michilimackinac in great numbers, camping in the woods and visiting the fort to dispose of their peltries, with every appearance of friendship. Some of the traders who understood their character and knew the deadly hatred they bore toward the English cautioned the commandant, Major Etherington, that it might be dangerous to permit hundreds of Indians to have such freedom; but the major, young and confident, only rallied the traders for their timidity, asserting that there was no danger.

On the fateful morning of June 4th the Indians gathered in front of the fort, announcing that they were to play their favorite game of Bag-gat-i-way, the Ojibways being pitted against the Sacs, for a high wager. This game, played with bat and ball, resembles lacrosse, the national game of Canada, which it is believed the French Canadians adapted from the Indians. The stick used was four feet long and one inch thick, made from the toughest wood that could be procured. One end was curved or ended in a ring, in which a network of buckskin thongs was loosely woven; the ball was not to be touched by hand or foot, but caught in the net.

At each end of the ground two tall posts were firmly planted a few inches apart; these marked the stations of the rival parties, the distance varying from a few rods to a mile. The object of each party was to defend his posts and send the ball between those of his adversary. The number of the contestants might vary from fifty to several hundred. If one day was insufficient to decide the game it was continued the following day. The contest was accompanied invariably by great noise and rude violence.

The outer square of this primitive fortification of a century and a half ago was surrounded with high palisades of cedar; within this inclosure was a smaller one, with officers' quarters, barracks, etc., and above the wooden bastions the British flag floated lazily in the summer breeze, guarding the fort and the little cluster of Canadian houses just beyond. In the open space between the walls of posts the red uniforms of the British soldiers, the gray coats of the Canadian voyageurs and the gaudy blankets of the Indians mingled in picturesque confusion. The last-named were permitted free access to this outer court to bargain with the traders, whose goods were stored there for safety.

It was the birthday of King George III. and a partial holiday, consequently discipline was relaxed. In response to the invitation of the chiefs many of the officers and soldiers had come outside the gates in order the better to see the sport, while the squaws were allowed to stand within the inclosure. While the soldiers strolled around in full enjoyment of the unusual privilege four hundred Indians gathered between the stations, near the open gate. They were in festive costume, stripped to the waist, their bodies daubed with paint and scalp-locks adorned with feathers, all in readiness to begin the play, which, with its attendant yelling and shrieking, was designed to divert the attention of the garrison from any possibility of danger. It was an ingenious plot and aroused no suspicion.

At length the moment for action came. In great excitement the ball was tossed high in the air, when a general scramble ensued to secure it. The fortunate one who caught it in his bat held the stick high above his head and ran swiftly toward the goal of the opposing party; when his course was intercepted he threw it as a boy throws a stone from a sling. Back and forth it whizzed, repeatedly changing its course as the throng rushed after it in mad haste. Several times when all were running at full speed the foremost one stumbled, when fifty or one hundred, unable to stop in their fierce pursuit, fell upon him until there was a mound of struggling, screaming Indians.

In the midst of this frenzy, while shouts from four hundred savage throats filled the air, the ball was thrown. Rising higher and speeding swifter than before it fell within the palisades. Onward came the Indians, pushing and struggling for advance, shrieking in the unrestrained indulgence of their rude game. They rushed through the gates where the squaws stood impassive as ever, though sharers in the plot. Suddenly the braves seized the tomahawks and knives which the squaws had concealed beneath their blankets, and uttering their terrible war-whoop commenced an indiscriminate slaughter. Of three officers, ninety soldiers and four traders at the fort but twenty escaped death.

This atrocious massacre resulted in no permanent advantage to the Indians. Strange to say, they did not destroy the stockade and buildings, and one year later Captain Howard, with a detachment of British soldiers, occupied the fort. Again the cross of St. George was raised over that frontier post, which, with its suggestion of safety to the various fur companies, for many years made the great province of Michilimackinac the commercial center of one of the grandest business enterprises in the world.—Edward Frost Watrous, in the American Boy.

SHREWD SAYINGS OF MR. DOOLEY

If ye live enough befure thirty ye won't care to live at all afther fifty.

I don't see why anny man who believes in medicine wud shy at th' faith cure.

To most people a savage nation is wan that doesn't wear oncomf'rtable clothes.

All th' wurruld loves a lover—excipt sometimes th' wan that's all th' wurruld to him.

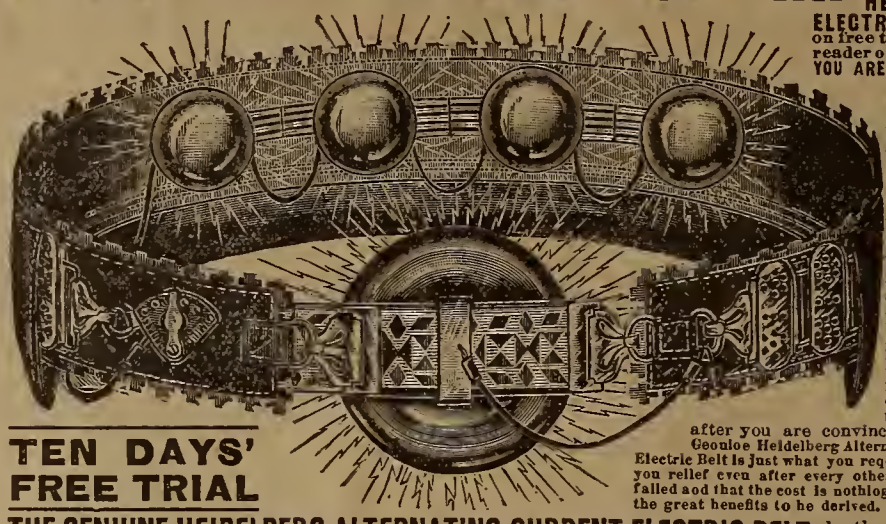
Most vigitaryans I iver see looked enough like their food to be classed as cannybals.

Th' modhren idee iv goverument is, "Snub th' people, buy th' people, jaw th' people."

A fanatic is a man that does what he thinks th' Lord wud do if he knew th' facts iv th' case.

People that talk loud an' offend ye with their insolence are usu'lly shy men thryin' to get over their shyness. 'Tis the quiet, resarved, ca'mspoken man that's mashed on himself.

FREE ELECTRIC BELT OFFER. We will send one of our GENUINE HEIDELBERG ELECTRIC BELTS on free trial to any reader of this paper. YOU ARE NOT ASKED TO PAY ONE CENT until after you have worn the belt yourself, tried it thoroughly, until after you have felt its wonderfully good effect and convinced yourself that it is a perfect electric treatment, unlike all other electric belts and appliances heretofore offered. We do not expect one cent of money until after you are convinced that the Genuine Heidelberg Alternating Current Electric Belt is just what you require, will give you relief even after every other means have failed and that the cost is nothing compared to the great benefits to be derived.



TEN DAYS' FREE TRIAL

THE GENUINE HEIDELBERG ALTERNATING CURRENT ELECTRIC BELT is the only sure cure for all weaknesses, all disorders of the nerves, stomach, liver and kidneys. For the immediate relief of rheumatism, neuralgia, headache, lumbago, fever and ague, asthma, dyspepsia, kidney troubles, liver disorders, throat troubles, catarrh, constipation, sciatica, pains in the back, sleeplessness, nervous debility or exhaustion, paralysis and constitutional weakness it has no equal. For the quick and positive cure of all diseases and disorders that arise from a diminution or lessening of the vital power, which electricity alone can restore and increase, the Heidelberg Electric Belt is absolutely guaranteed. For a weak and deranged nervous system, the electric belt has splendid results. It stops losses, repairs waste, gives tone to every tissue and muscle and the whole body feels the good effect. Weak men, sufferers from lost manhood, lost vigor, varicocele, etc., find the Heidelberg Belt wonderful in its quick relief and cure.

IF YOU ARE SUFFERING in any way, if your physical condition is not in the highest state of perfection, if you have been unable to obtain relief by means of any other treatment, electric or otherwise, don't fail to cut this ad. out and send to us and our Free Electric Belt Catalogue and FREE TRIAL OFFER will be sent to you by return mail.

EVERY HEIDELBERG BELT IS PUT OUT UNDER OUR BINDING GUARANTEE for more cure, more power, more and quicker relief than any electric belt sold at three times the price. Every belt furnished with our new current regulator, by which the current can be adjusted to any strength for any case; complete with finest electric sack suspensory (not shown in cut). Our very handsome and completely illustrated electric belt catalogue containing prices and full descriptions of the different electric belts we furnish at $2.00 and upwards, also full particulars of our heretofore unheard of ten days' free trial offer, will be sent free on request to anyone who will apply for it. Address, SEARS, ROEBUCK & CO., Chicago, Ill.

1901 "OAKWOOD" $15.95

THE PRETTIEST WHEEL IN AMERICA

Something Entirely New—Three Crown.

Send no Money—Just Order

this strictly high-grade 1901 Oakwood. State name, address, express office; whether you want lady's or gent's; color: black or maroon; size of frame and gear wanted, and we will send the Wheel to your express office, C. O. D., subject to your examination. Compare it with any other wheels offered at twice the price, place it beside "Wheels" offered at less money and if you do not find it superior to either at our $15.95 price, you will of course refuse it. The "Oakwood" is a standard wheel and our written, binding guarantee protects you fully. We have fully equipped wheels from..... $10.75 UP

DESCRIPTION: MADE OF THE BEST SHELBY SEAMLESS TUBING, three-crown (latest improved Columbia box crown) nickel-jointed; nickel steering head, 2½ inch drop; one-piece crank; flush joints throughout; single or double tubed tires. Send for Free Catalogue of bicycles and bicycle sundries. A HIGH-GRADE STANDARD GAS LAMP FOR..... 45c

CASH BUYERS' UNION, (Inc.) 162 W. Van Buren St., Dept. P-7, Chicago

WATCH AND CHAIN For One Day's Work FREE

Fully Guaranteed.

We send this Nickel-plated Watch also a chain and charm, to Boys & Girls for selling 1½ dozen packages of BLUINE at 10c each. Send your full address by return post, and we will forward the Bluine, postpaid, and a large Premium List. No Money Required. We send the Bluine at our own risk. Send us the money that you get for it, and we send you the Watch, Chain and Charm postpaid. WE TRUST YOU.

THE BLUINE MAN, Box 892, Concord Junction, Mass. The Old Reliable firm who sell honest goods and give valuable premiums.

CAREER AND CHARACTER OF ABRAHAM LINCOLN

An address by Joseph Choate, Ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life—his early struggles with the world—his character as developed in the later years of his life and his administration, which places his name so high on the world's roll of honor and fame, has been published by the Chicago, Milwaukee & St. Paul Railway and may be had by sending six (6) cents in postage to F. A. Miller, General Passenger Agent, Chicago, Ill.

A GOOD PAIR OF TIRES for $2.95 per pair direct from Maker to Rider.

Will plug and repair as good as any high-grade tire. Send for a pair at once. None sent C. O. D., but we will refund your money if not satisfactory.

DELAWARE RUBBER CO., 244 Market St., Philadelphia, Pa.

ORNAMENTAL FENCE

25 designs, all steel. Handsome, durable.—Cheaper than a wood fence. Special inducements to church and cemeteries. Catalogue free.

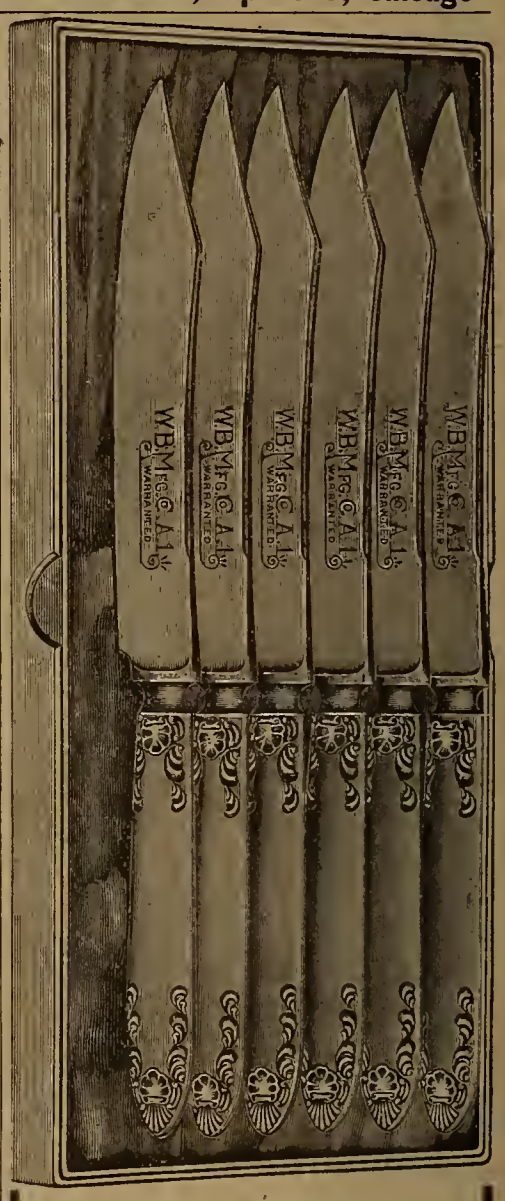
KOKOMO FENCE MACHINE CO., 427 North St., Kokomo, Indiana.

40c. PATTERNS FOR 10c.

Our Spring and Summer Catalogue of patterns contains all the very latest styles of garments. The patterns are especially suited for home dressmaking. Send your name for the catalogue. It is free. Address FARM AND FIRESIDE, Springfield, Ohio

LADY AGENTS

Desiring a particularly profitable business this summer should write to our DEPARTMENT OF AGENTS. We furnish new material FREE, and to special ability we accord special rates. One lady made $55 in 58 hours' canvassing. This is a great opportunity. THE CROWELL & KIRKPATRICK CO., Springfield, O.



SIX SILVER-PLATED

FRUIT-KNIVES

And the Farm and Fireside One Year, for $1.25

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

These knives have a fine steel blade and handle, the whole being heavily silver-plated. They are of the same excellent quality as the ware we have given our subscribers for years, and like it are guaranteed to give satisfaction or your money will be promptly refunded. The length of the blade is 4 inches, length over all 7¼ inches, and the blade is ⅝ of an inch wide.

GIVEN AS A PREMIUM FOR 6 YEARLY SUBSCRIPTIONS TO FARM AND FIRESIDE

Order by Premium No. 84

Address FARM AND FIRESIDE, Springfield, Ohio

CURED BY A MIGHTY POWER

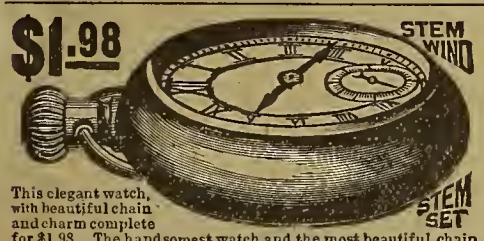
The Secret of the Soul Combined with Magnetic Medicines by a Method Originated by Dr. J. M. Peebles, the Grand Old Man of Battle Creek, Mich., Cures So-Called Incurable Diseases

The phenomenal cures made by Dr. J. M. Peebles, the eminent scientist of Battle Creek, Mich., have astonished physicians and scientists throughout the world, for in a marvelous manner he dispels all diseases and gives permanent health, vigor and strength to all who desire it. His work is indeed blessed and wonderful. His power comes from the

DR. J. M. PEEBLES

fact that he has discovered the secret of the soul, which he terms Psychic; this he combines with magnetic medicines prepared in his own laboratory, making the strongest healing combination known to the world. This wonderful man has so perfected his method that it now reaches all classes of people, for it annihilates space and cures patients at a distance in the privacy of their own homes without the knowledge of any one. If you are in any way sick and will write to Dr. J. M. Peebles, telling him your leading symptoms, he will, through his psychic power, diagnose your case and send you full instructions free of any charge; no matter what your disease or how despondent you may feel, there is hope for you. Hundreds of women who suffer the many irregularities common to their sex have been cured through Dr. Peebles' method after they had been told their cases were incurable. The same may be said of men who were debilitated from early indiscretions. Indigestion, stomach troubles, catarrh, weaknesses of all kinds, and in fact all diseases succumb to this wonderful man's method of healing. Remember, it makes no difference how hopeless your case may seem, or how many have pronounced it incurable, Dr. Peebles can help you, and it costs you absolutely nothing to receive his diagnosis and instructions. He also sends you free of any charge his grand book, which will be of invaluable service to you. You also receive a long list of testimonials proving beyond a doubt that his method is revolutionizing the art of healing the sick and despondent. Address Dr. J. M. Peebles, Dept. U, Battle Creek, Mich. Remember, it costs you nothing.

$1.98 STEM WIND



STEM SET

This elegant watch, with beautiful chain and charm complete for $1.98. The handsomest watch and the most beautiful chain ever offered at the price. **SEND NO MONEY,** cut this out and send it to us with your name and address and we will send the watch and chain and charm to you by express. You examine them at the express office and if as represented pay express agent our special introductory price $1.98 and the watch and chain and charm are yours. A guarantee for 5 years with every watch. Address **R. E. CHALMERS & CO. 352-356 Dearborn St. Chicago.**

FAT

How to reduce it

Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. three years ago, and I have not gained an ounce since." Purely vegetable, and harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc.

Hall Chemical Co.,
Dept B, ST. LOUIS, MO.

DEAFNESS CURED

Deafness is incurable till the cause is removed. Therefore Ear Drums and other artificial aids never cure. 95 per cent. of all cases of Deafness is caused from Catarrh, and as Catarrh cannot exist under the use of **"Actina,"** nobody need be Deaf where the Actina **Pocket Battery** is obtainable. Are you seeking a cure? Then investigate **"Actina."** Write today for *a valuable book*—Prof. Wilson's Dictionary of Disease, **Free. New York & London Electric Ass'n, Kansas City, Mo. Dept. 68.**

DERMATINO REMOVES SUPERFLUOUS

HAIR ON FACE

neck, arms, etc., without injuring the skin. Its action is marvelous, totally unlike other remedies which give but temporary relief. DERMATINO will remove FOREVER the affliction of years. **FREE**—Booklet, testimonials and full information on this remarkable discovery. **THE DERMATINO CO., Dept. F-34, St. Louis, Mo.**

ECZEMA Facial Blemishes, Tetter, Salt Rheum, Barber's Itch, Scald Head, Ring Worm, Itching Piles, Sore Eyelids, and all Skin diseases promptly cured by Spencer's Ointment. Sent to any address on receipt of 25c. **A. O. PILSON, Pharmacist, 1327 W. Baltimore St., Baltimore, Md.**

MYSELF CURED I will gladly inform anyone addicted to **COCAINE, MORPHINE, OPIUM OR LAUDANUM,** of a never-failing harmless Home Cure. Address **MRS. MARY D. BALDWIN, P.O. Box 1212, Chicago, Ills.**

TRUSSES 65c UP Save one-half by writing for our FREE catalogue and prices. 30 kinds. We are manufacturers. Established 21 years. Perfect fit or money back. **HENRY SCHROEDER, 462-469 Milwaukee Ave., Chicago.**

BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

THE RAINDEER

The Raindeer is a funny fellow,
He always carries an umbrella;
He's very fond of mackintoshes,
And wears two pairs of fine galoshes.
It causes him extreme regret
If any of these things get wet,
So when the sun shines in the sky
He hangs them on his horns to dry.

—Puck.

BOILED DOWN

THIS is the story that the ambitious young man sent to divers trade papers.

"Mr. Y. William Wriggles, the celebrated advertising manager of the Flybynight Novelty Company, has yielded to the earnest, not to say tearful, pleadings of the directors of the Canajoharie Corn-plaster Corporation, and will hereafter devote his astonishing talents to that concern. His hebdomadal emolument is proportioned to his abilities, and has involved an assessment upon the stock of the corporation. This amount will be cheerfully paid, for the stockholders know that they will soon get their money back in the form of increased dividends, of which the engagement of Mr. Wriggles is a sufficient guarantee.

"Mr. Wriggles was escorted to the corn-plaster foundry by the entire board of directors, the venerable president unrolling a red three-ply carpet before him as he advanced from the trolley-car to the office door. In honor of the occasion an extra ration of chewing-gum was dealt out to the lady employees, and the whistle blew ten minutes earlier than usual at night.

"Y. William Wriggles was born twenty years ago in Rubber Neck, L. I. At the age of three years he had carved his initials on the dining-table and on his mother's mahogany bed. This early sign of a genius for advertising so pleased his parents that they decided that his home afforded no sufficient scope for his abilities. He was therefore sent to an institution where close hair-cuts and wholesome restraints were in fashion. A mere catalogue of his exploits would fill more space than this journal can devote even to so great a subject.

"It is rumored that the Flybynight Novelty Company is about to go into the hands of a receiver."

This is what got into print:

"Willie Wriggles, late of the Flybynight Novelty Company, has got a new job in Canajoharie."—National Advertiser.

FAIR WARNING

A popular Cleveland doctor tells this story of a bright boy, his own, who had reached the mature age of nine after an early career marked by many wild and mischievous pranks.

His restless nature has made him something of a torment to his teacher at times, and one afternoon not long ago she kept him after the others were dismissed and had a serious talk with him. Perhaps she was a little afraid that her admonitions were falling on stony ground. Anyway, she finally said, "I certainly will have to ask your father to come to see me."

"Don't you do it!" said the boy.

The teacher thought she had made an impression. "Yes," she repeated, "I must send for your father."

"You better not!" said the boy.

"Why not?" inquired the teacher.

"'Cause he charges two dollars a visit!" said the scamp.—Cleveland Leader.

HE KISSED MA, TOO

During the "late unpleasantness" two well-known La Moure gentlemen who aspired to the same office—the contest being a three-cornered one—were looking after their political fences a few miles north of the city. Both happened to be on the same road a short distance apart. The hindermost called at a certain house where a bright little girl came to the door.

Said he, "Sissie, will you please give me a drink of water?" Which she quickly did. Then he gave her some candy, and asked, "Did the man just ahead of me give you any candy?"

"Yes, sir."

Then he gave her a nickel, and inquired, "Did he give you any money?"

"Yes, sir; he gave me ten cents."

Then picking her up he kissed her, and asked, "Did he kiss you?"

"Yes, sir," she replied; "and he kissed ma, too!"—La Moure (N. D.) Chronicle.

A POSTPRANDIAL ORATOR

"Uncle John," remarked Dick, "is the finest after-dinner speaker I ever knew."

"Why," said his friend, with some astonishment, "I never heard he had any ability in that direction at all."

"Well, he has. I've dined with him several times at various places, and after dinner he always says, 'That's all right, my boy! I'll pay for it!'"—Answers.

GAME TO THE LAST

A certain duke, while driving from the station to the park on his estate to inspect a company of artillery, observed a ragged urchin keeping pace with the carriage at his side. His grace being struck with the cleanliness of the lad asked him where he was going.

The lad replied, "To the park to see the dook and sogers."

The duke feeling interested stopped his carriage and opened the door to the lad, saying he could ride to the park with him. The delighted lad being in ignorance of whom he was kept his grace interested with the quaint remarks till the park gates were reached.

As the carriage entered it was saluted by the company and guns, whereupon his grace said to the lad, "Now can you show me where the duke is?"

The lad eyed his person all over, then looking at the duke replied, quite seriously, "Well, I dunno, mister; but it's either you or me!"—London Spare Moments.

A PLAUSIBLE STORY

Lady—"Why are you wandering around the country, I should like to know, instead of staying at home and taking care of your family?"

Tramp—"You see, mum, my wife had a very good servant-girl—a regular jewel, mum."

Lady—"That doesn't seem possible!"

Tramp—"There never was but one perfect girl, and my wife had her, mum."

Lady—"Mercy! What a lucky woman!"

Tramp—"Yes, mum; so my wife often said. But you see, mum, the girl didn't like me."

Lady—"She didn't?"

Tramp—"No, mum! She said my wife would have to discharge her or me, so she discharged me."

Lady—"Oh, I see! Here's some money."—New York Weekly.

A HIGHER CALLING

De Wolf Hopper is as quick-witted and as nimble-tongued as any other shining light of "The Lambs," a club noted for its brilliant members. He is credited with having squelched an impertinent attorney with neatness and dispatch. He was a witness in a case and was being questioned by the opposing counsel in a way that was not particularly to his liking.

But a climax was reached when the lawyer, in the insulting tone usually adopted to witnesses, said, "You are an actor, Mr. Hopper. Do you not consider acting a low calling?"

"Not when I compare it to my father's," was the answer.

"What was your father's calling?"

"He was an attorney!" answered Hopper.—Club Fellow.

ADAPTABLE NAMES

"Why did Anthony Hope?"
"Because Mrs. Campbell Praed."
"When does Albert Trott?"
"When Gibson Bowles."
"What gave Barry Pain?"
"To see Flora Steel."
"Why was Rider Haggard?"
"Because he had to Marie Corelli."—London Globe.

HUSTLING IN HADES

"Ah, me!" said a lost soul, "isn't this a cheerless place to spend eternity?"

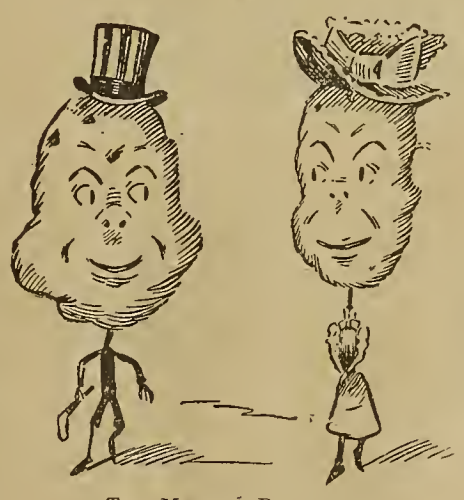
"Cheerless?" exclaimed the shade of the man from Chicago. "Why, one of the attendants told me that the place had doubled its population each decade for five thousand years!"—Judge.

A RARA AVIS

"For, look you, my friend Van Tank hath a treasure of a wife!"

"Sayest thou so?"

"In truth he has! For when he goeth out with a friend and getteth a jag she blameth it all on the friend!"—Puck.



TWO MASHED POTATOES
—The American Boy.

200,000 PACKAGES

TO BE

DELIVERED FREE BY MAIL

Dr. Whitehall, the noted rheumatism specialist of South Bend, Ind., writes that he will send a package of his remedies to every reader of FARM AND FIRESIDE who is suffering with rheumatism. The medicine will be sent to actual sufferers free of any charge. This liberal offer, coming from so famous a physician as Dr. Whitehall, will be received with joy by thousands of men and women who are sufferers from this very prevalent disease.

There is no other remedy in the world that will so quickly cure rheumatism.

A representative who called on Dr. Whitehall the other day was shown a large file case full of letters from people who had been cured. Following are a few among the hundreds of these letters. Space will not permit publishing more of them in this article:

Elder J. C. Shelton, Brooksville, Blount Co., Ala., wrote: "My wife had rheumatism spells every two or three weeks for 45 years. She suffered awful agony at times until I feared she would go insane. I used your remedy during an attack until she sweated freely, when she got easy of all pain. She continued to take the medicine, and, strange to say, she had no more spells. I will gladly recommend the remedy to every one." Mrs. M. S. Hoadley, of Sedalia, Mo., quoted in her own words: "It is wonderful what your medicine has done for me. I was on crutches Friday night when I received it. I took one dose, and on Monday put away the crutches and used a cane. Since Thursday I have not used either, and am doing my own work. I had rheumatism off and on for 40 years." Mr. A. May, aged 63, Butler, Ind., said he took seven different kinds of medicine without relief. Dr. Whitehall's Rheumatism Cure enabled him to throw away his crutches after taking the medicine three days. Mrs. Dunaway, 487 E. 13th St., Anderson, Ind., wrote that her son was a terrible sufferer for over nine years, and was not able to wear shoes at all. He was cured as by magic. Mrs. Dunaway wrote that she got the medicine for her son upon the recommendation of Captain Coburn of the police department of Anderson, who was himself cured by the remedy. Evan P. Jones, North Vernon, Ind., wrote that he was cured of rheumatism of the severest kind, and said at the conclusion of his long letter to Dr. Whitehall: "You may refer any one to me." **DR. WHITEHALL, South Bend, Ind.**

GUIDE TO THE

Pan-American

EXQUISITE blending of soft, harmonious colors has given to the Pan-American Exposition the name of the Rainbow City. Just as beautiful in its blending tints is the handsome little

Guide Book Issued by the Lackawanna Railroad

giving information that every Pan-American visitor is anxious to have.

Write for one, inclosing 4c. in postage-stamps, to

T. W. LEE, General Passenger Agent
NEW YORK

FREE

DO YOU WANT A WATCH that runs & keeps good time This watch has a SOLID GOLD laid case, handsome dial dust proof, adjusted to position, patent escapement, and highly finished. This is a remarkable watch. We guarantee it, and with proper care it should wear and give satisfaction for 20 years. It has the appearance of a SOLID GOLD one. The watch is accompanied with a 20 YEAR GUARANTEE. The cases are beautifully made by the most skilled workmen. The movement is an AMERICAN STYLE, expansion balance, quick train, and you can rely upon it that when you own one of these truly handsome watches, you will at all times have the correct time in your posession. Do you want a watch of this character? If so, now is your opportunity to secure one. WE GIVE IT FREE as a premium to anyone for selling 18 pieces of our handsome jewelry, for 10c. each; (each set with an exquisite jewel), Regular price 25c. each. Simply send your name and address and we will send you the 18 pieces of jewelry postpaid. When sold send us the $1.80, and we will send you the handsome watch. We trust you and will take back all you cannot sell. We propose to give away these watches simply to advertise our business. No cash-words in this advertisement. We mean just what we say and allow a cash commission if preferred. You require no capital while working for us. Address, **SAFE WATCH CO., P. O. Box 180, New York.**

WE TEACH YOU FREE
$5. to $10. PER DAY.
Gold, Silver, Nickel and Metal Plating. At home or traveling, using and selling **Prof. Gray's Machines.** Plates Watches, Jewelry, Tableware, Bicycles, all metal goods. NO EXPERIENCE. Heavy plate. Modern methods. No toys. We do plating, make outfits, all sizes. Complete, all tools, lathes, materials, etc., ready for work. **The Royal,** new dipping process, quick and easy. **Write today.** Pamphlet, samples, etc., **FREE. P. GRAY & CO., Plating Works, CINCINNATI, O.**

WANTED AGENTS in every county to sell "Family Memorials;" good profits and steady work. Address **CAMPBELL & CO., 616 Plum St., Elgin, Ill.**

TAPE-WORM EXPELLED ALIVE. Head guaranteed; 2c. stamp for booklet Byron Field & Co. 182 State St. Chicago

BEAUTY BOOK Hints on Health and Beauty. Free for 4c. postage. Morene Co., Kansas City, Mo.

If afflicted with weak eyes, use **Thompson's Eye Water**

NEW CENSUS EDITION .... PEOPLE'S ATLAS OF THE WORLD

An altogether new book just written, measures 22 by 14 inches when open, and 14 by 11 when closed, is clearly printed on good paper, is well bound, and is positively the

BIGGEST ATLAS BARGAIN IN THE HISTORY OF THE WORLD

Up-to-Date Maps

This superb Atlas contains up-to-date maps, having been thoroughly revised according to the latest surveys. The maps of China, South Africa and the Philippines are exceptionally complete and up to date.

NORTH FRONT OF WHITE HOUSE, WASHINGTON, D. C.
One of the three illustrations on page 27 New People's Atlas of the World

Census of 1900

The population of States, Cities, Counties and Towns are given according to the Census of 1900. All of the statistical information is of the very latest and from the most reliable sources.

Every Atlas, every book of statistics heretofore published is out of date. They are based on the United States Census of 1890, and are behind the times. Get the People's Atlas, as you know its information is reliable and from the very latest authentic sources. **IT CONTAINS 155 LARGE PAGES AND MORE THAN 200 MAPS AND ILLUSTRATIONS,** and is a veritable Gazetteer of the World. Full satisfaction guaranteed or your money promptly refunded. We know it will please.

We Will Send the Farm and Fireside One Year and the People's Atlas of the World for . . . 40 Cents

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

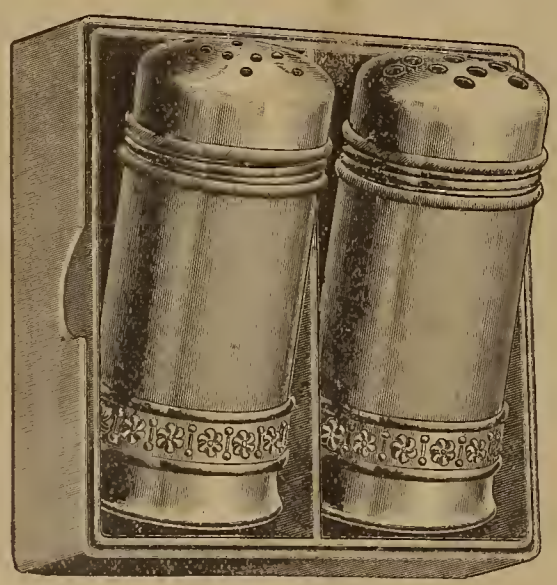
The People's Atlas of the World Given as a Premium for TWO Yearly Subscriptions to the Farm and Fireside

POSTAGE PAID BY US. ORDER BY PREMIUM NO. 12

SALT AND PEPPER SHAKER

BOTH GIVEN FOR TWO YEARLY SUBSCRIPTIONS

These shakers are 2¾ inches high by 1¼ inches in diameter, which is a good proportion and makes a good-sized shaker. They are neatly embossed, the bottom up to the embossing and the top being highly burnished, while the main body of the shaker is satin-finished. They are well silver-plated on a base of high-grade nickel-silver, which insures first-class wearing quality.



Premium No. 417

The set, a salt and a pepper, is packed in a case, and will be sent by mail, post-paid. They are very neat and very serviceable. This set is especially good value and an extra liberal reward for but two yearly subscriptions. Send two yearly subscriptions for it and we know that you will be well pleased.

We Will Send the Farm and Fireside One Year and This Set for Only . . . . . 75 CENTS

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

SILVER-PLATED BERRY-SPOON

Given for FOUR Yearly Subscriptions

The base of this ware is solid nickel-silver metal, which is the best white metal known for the base of silver-plated ware, because it is so hard and so white that it will never change color and will wear for a lifetime. The base of this silverware is plated with the full STANDARD amount of pure coin-silver and will give good wear. There is no better plated ware for wear.

AN INITIAL LETTER

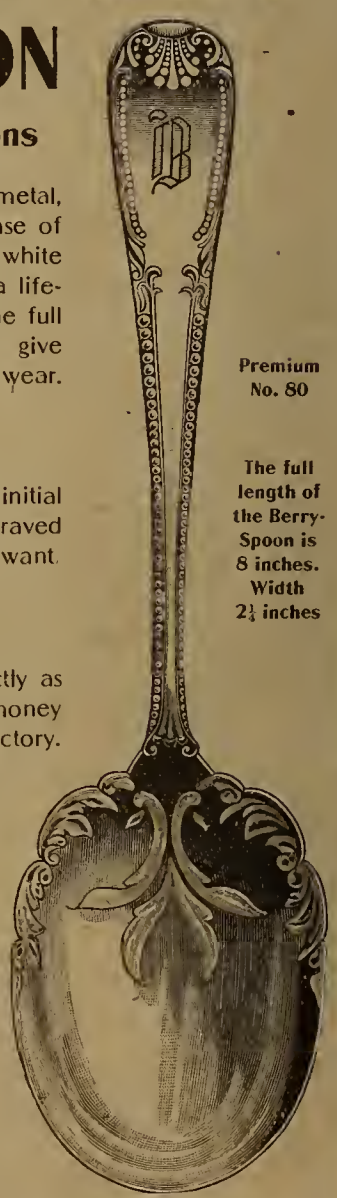
Each pice is engraved free of charge with an initial letter in Old English. Only one letter will be engraved on each piece. Be sure to state what letter you want.

GUARANTEE

We absolutely guarantee every piece to be exactly as it is described and to give entire satisfaction or money promptly refunded. It has never proven unsatisfactory.

FREE This Berry-Spoon will be given as a premium for FOUR yearly subscriptions to the Farm and Fireside.

ILLUSTRATION REDUCED SIZE



Premium No. 80

The full length of the Berry-Spoon is 8 inches. Width 2¼ inches

We Will Send the Farm and Fireside One Year and this Berry-Spoon for

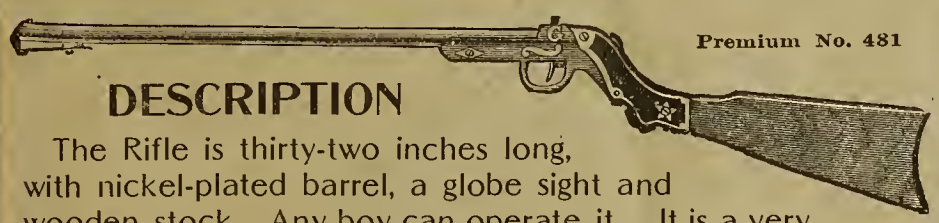
65 CENTS

(When this offer is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

A NEW Repeating Air-Rifle

Given for SIX Yearly Subscriptions



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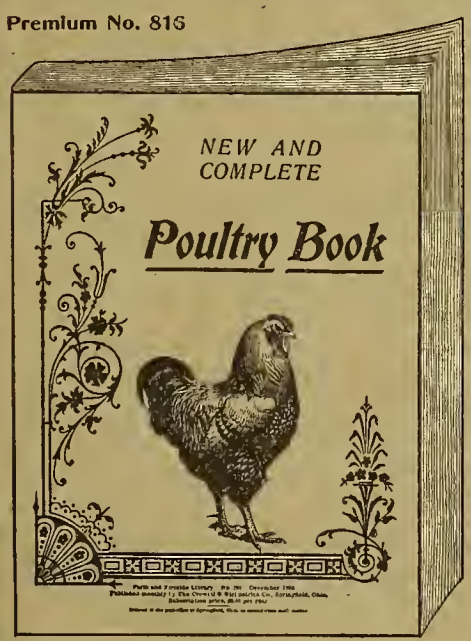

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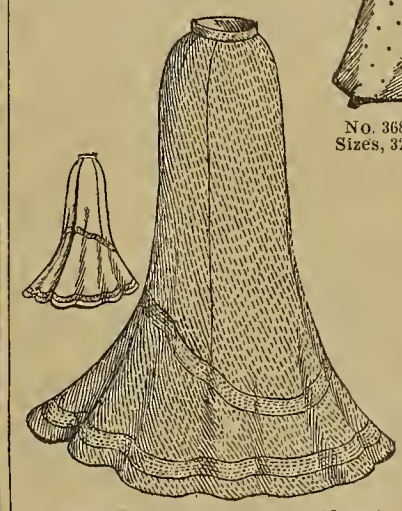

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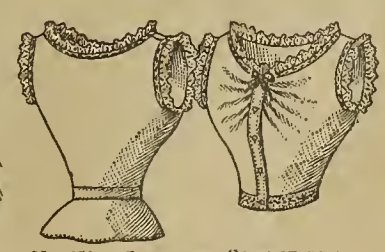

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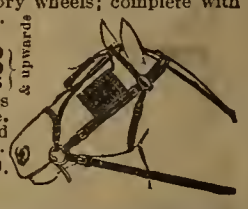

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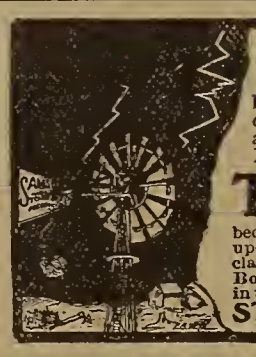

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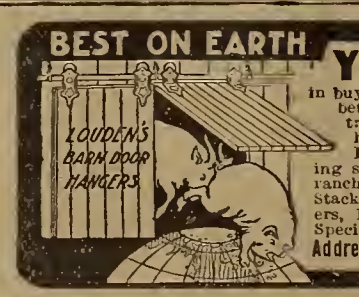

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Opening Indian Lands for Settlement

BY FRED J. HASKIN

ANADARKO is the seat of government for the Indian tribes whose lands are going to be throwu open for settlement during the late summer or early fall. The territory involved in this opening consists of the large district known as the Kiowa, Comanche and Apache reservation, and the smaller tract inhabited by the Wichitas and affiliated tribes. The first-named is bounded on the north principally by the Wichita River; on the east by the Indian Territory; on the south by Red River, and on the west by the north fork of Red River. The Wichita reservation is bounded on the north by the South Canadian River; on the east by the Indian Territory; on the south by the Washita River, and on the west by the Arapahoe and Cheyenne Indian lands, which are now marked on the map as Custer and Washita Counties, Oklahoma. In the Kiowa and Comanche strip there are 2,968,893 acres. The tract of the Wichitas is smaller, having only 743,610 acres. The two reservations are separated by the Washita River. A line drawn through the

WICHITA GRASS HUT

center of the two, from north to south, would measure one hundred and fourteen miles, and from east to west eighty-one miles.

The impression seems to exist that the opening of these reservations is a regular bonanza for the home-seeker; that the country in question is an agricultural Eldorado, large enough to accommodate all comers, and awaiting a population. This is all a great mistake. In the first place, the law provides that each Indian brave, squaw, and pappoose who was thirty days old when the bill that provided for the settlement of the country was passed shall be allowed to select a quarter-section of land before the opening. There are two thousand nine hundred Indians on the Kiowa and Comanche side who are eligible to claims under this act, and one thousand and sixty claimants on the Wichita side. The Indians are allowed to select their claims wherever they see fit, and they are naturally taking the best there is in sight. For every claim taken by an Indian the government sets aside another quarter-section to be retained by the tribes as grazing land. One ninth of the total number of acres has been set aside as school land, and the last government report on the character of the land in the reservations states that there are two hundred and fifty thousand acres of rocks that cannot be cultivated at all. Putting all this together it can be readily seen that it is not such a wonderful opportunity for the home-seeker, after all.

The most important fact to be taken into consideration, however, is that the claims are not near so valuable as they are generally supposed to be. It is not a farming country in any sense of the word. The government has been helping the Indians to farm the best portion of these lands for years, and it has been very thoroughly demonstrated that the amount of rainfall is too small to warrant the production of crops with any degree of certainty. In this connection it may be well to quote Colonel Randlett, the Indian agent in charge of the reservations. In referring to the nature of the country and the chance it affords the home-seeker he said:

"The statement that these lands about to be opened for settlement constitute a vast, fertile area of several million acres extent is altogether wrong and should be corrected as far as possible. There are parts of it that are exceedingly well adapted to agricultural purposes when there is sufficient rainfall, that portion known as the Washita Valley, which lies along the Rock Island railroad between Chickasha and Anadarko, being as fine farming land as can be found anywhere. It is this fertile section that has given the country the fine reputation it seems to enjoy, but does not deserve as a whole. There is one fourth of the reservation, about seven hundred and forty-two thousand acres lying in the northwest portion, where the soil is very light, porous and sandy. It is covered with sage-grass, washes easily, and when plowed blows about and drifts. This being the case it of course dries out quickly, and the crops sown upon it dry up and burn easily. They have proved a poor success as farm lands, despite the fact that continued effort has been made to create farms here for many years. On the land known as the agency farm, which is as good soil as there is in the territory, there have been but four crops in twenty-five years, and none of these reached thirty bushels to the acre, on account of the hot winds and continued droughts which are peculiar to this section. The lands of the reservation generally are better adapted for grazing purposes than for farming. I have reported the facts as I have given them to you in my departmental reports to the government from time to time, and my predecessors in office have done likewise, and it seems strange that the true state of affairs out here should be so generally misunderstood. The opposition of the cattlemen to the opening of the reservation may have led some to believe that the reports were colored to favor their interests; but this is not the case, and even if it had been, there is no occasion for continuing the deception now that the bill to open the land has become a law. My reason for being so plain-spoken about the matter is simply that I do not want the people to be deceived in the character of the country that is attracting them. There is much good land on both sides of the river, but the four thousand Indians now living upon it will get the most of it that is worth having.

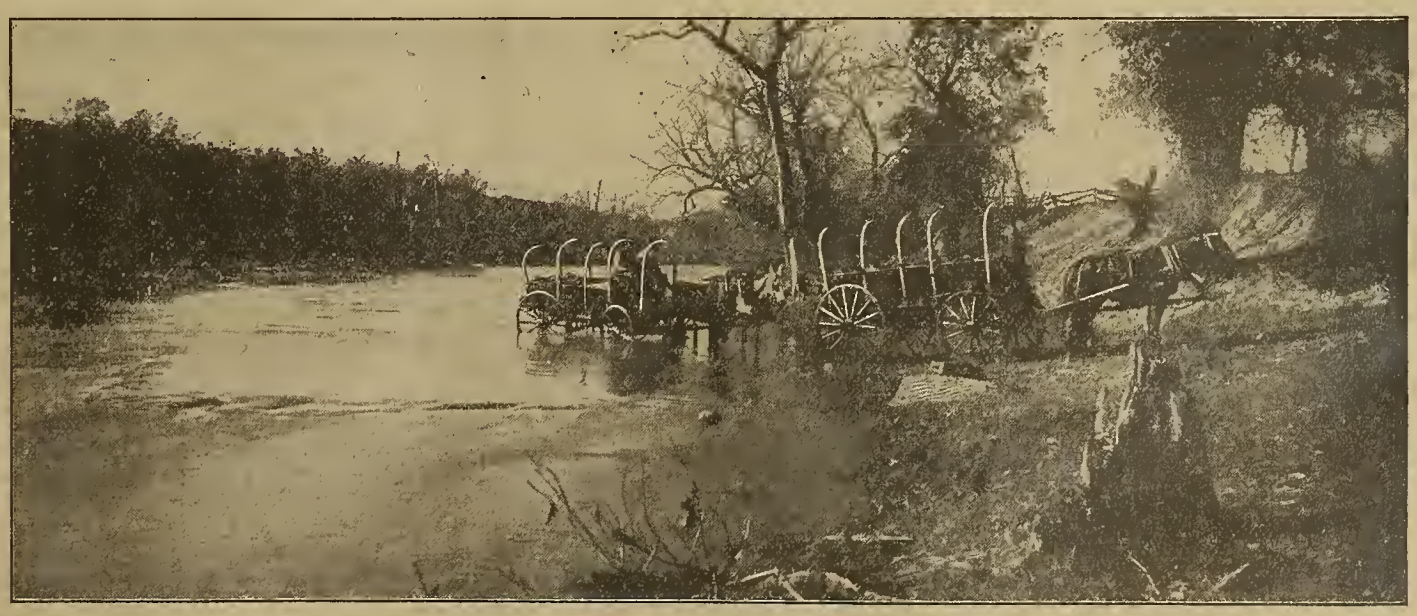
TE-WA-KE-NA JIM, CHIEF OF THE WICHITAS

If the opening were made to-day there are five men at hand for every desirable claim that would be left."

It is a generally accepted fact among those acquainted with the country that these reservations are not adapted to agricultural purposes. The soil of the bottom-lands would be excellent for almost any kind of farming were it not for the irregularity of the rainfall. Wheat on the river bottom-lands usually matures, but is often injured by rain during the harvest. The last two seasons were very favorable for wheat, and the farmers of Washita Valley have had two good crops. The prospects for this year are very poor, however, there having been no rainfall of any consequence from November to May. The prospects for fruit were ruined in most places by a heavy frost on April 6th. Indian corn generally matures when planted early. Unless it is planted early it is likely to be injured by the hot winds, which generally prevail from July 15th to October 1st. These winds dry ont all vegetation except Kafir-corn. All vegetables must be planted early in order to prevent their drying up. The country is well adapted to stock-raising, and vast sums of money have been made by those who understood this fact and took advantage of it. The native grass is abundant and stands the drought well. Kafir-corn makes good forage for stock and is said to be a good substitute for corn as feed. It will endure drought that will kill the growing Indian corn. It will also thrive on the uplands where the Indian corn will not grow at all. At present it is used almost exclusively for stock food. When planted for fodder it is sown in rows and cut by hand before the seed ripens, then shocked and fed like corn fodder. This product is of the greatest importance to persons who have a small acreage and desire to raise small herds of cattle, as it makes winter feed almost a certainty when the winters are severe and grass has failed to supply sufficient feed. It is not safe to rely upon anything but the native grass as forage. Cotton has been experimented with to some extent and may become an important factor in the agricultural development of the reservations.

The law stipulates that after the Indians have been allotted their claims what remains of the reservation shall be opened for settlement. Any citizen of the United States, or any one who has filed a declaration to become a citizen, male or female, and who is at the head of a family, or who is twenty-one years of age, or a deserted wife, or a widow, regardless of age, can file on a quarter-section of land, provided they have not made previous entry under the United States law, or, having made such, have commuted their entry to cash payment, or who is already the owner of one hundred and sixty acres. Ex-soldiers, or their widows, or minor children, under the above conditions, can enter by filing either in person or through an agent and have six months in which to commence settlement.

The manner of the opening is placed in the hands of the President, who has not yet announced the date and method of allowing the public to enter. The work of allotting the Indian claims will not be completed before the middle of June, and it is not likely that the proclamation will be issued before then. Despite this uncertainty, however, thousands are already camped on the border of the reservations, and all of the roads leading to them are dotted with the wagons of the home-seekers. Very few of these people appreciate the small chance they will have of getting a claim, and of its small value if they succeed in getting one.



VIEW ALONG THE WASHITA RIVER NEAR ANADARKO

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL & KIRKPATRICK CO.

OFFICES:

147 Nassau Street, New York City — Springfield, Ohio — 204 Dearborn Street Chicago, Illinois

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WITH THE VANGUARD

THE Montreal "Trade Bulletin" sets forth some homely truths in the following article on speculation:

"A well-known authority on grain speculation has said that in order to become a successful speculator one had need be well versed in the sciences. He should have a thorough knowledge of astronomy and meteorology, so as to be able to foretell future crop conditions by the study of solar, lunar and planetary influences upon plant life. This may be all very well, but can it be relied upon sufficiently to stake one's fortune upon it? We fear not. What most surprises us is that the above authority left out the ancient art of astrology, or the telling of one's future good or ill luck by the stars, as it seems to us there is more pure luck in grain speculation than in all the scientific knowledge in the world. For instance, it is narrated of a young man fairly well off, who a few years ago arrived in Chicago with the intention of seeking a still larger fortune in real estate, and whose letters of introduction were the means of making the acquaintance of a member of the Chicago Board of Trade, and consequently he soon became interested in the operations of the wheat pit; but before embarking in a deal, which it was pointed out to him must result successfully, he demurred until he had consulted an astrologer, who, after reading his horoscope, informed him that there was evidently a good stroke of luck awaiting him as a result of some business venture. 'But,' said the man of stellar art, 'I see some darkling shadow in the vision's brightness, which, however, betokens caution rather than the abandonment of your scheme.' The intending young speculator then mentioned the nature of the deal he thought of going into, and the circumstances which induced him to entertain it, whereat the astrologer ejaculated, 'Oh, aye, aye, aye, I see it all, and understand the shadow which threatens to bedim the brightness of the vision. Go, take your chance, and quickly, too, as the event so full of promise is edging on the present; but mark you well in its ripe execution, reverse the judgment which advises you to act. I mean, if even with the best intent your grain-commission friend says buy, then sell; or if, with best intent, he urges you to sell, then buy. Adieu, but falter not upon instructions given you.'

"The next morning the enterprising young man repaired to the office of his Board of Trade friend, and asked him if he still advised the selling of a good line of wheat short. The reply was that there were big profits to be made on the short side. 'Well, I have changed my mind,' said the young speculator, 'as I believe there is more money for me in going long than short, and you will now buy for me one hundred thousand bushels, for which here is my margin,' at the same time flinging down a check for five thousand dollars. 'Oh, certainly,' said the Board of Trade man; 'we have to obey the instructions of our customers, but still I would sooner see you on what I consider the safest side of the market.' No more was said, and shortly afterward the price of wheat commenced to advance, when it was found the Leiter crowd were under the deal, and hoisting values pretty rapidly—so rapidly, in fact, that the young hero of this narrative sold out his holdings at a profit of ten cents a bushel, or ten thousand dollars, although by holding on he could have made more. He was well satisfied, however, and, as may be readily imagined, again sought the advice of the astrological seer as to his future business ventures, and after telling him that he was fairly successful in following his late instructions, solicited his views as to his next best move. Again the seer looked into the young man's horoscope, and pretended to penetrate into the secrets revealed by the subtle influences of the stars that were ascendant at his birth. Again the astrologer referred to shadows on the young man's destiny, which, although not of serious augury, if he settled down to the prosecution of his regular business, might develop into disasters if he continued in the speculative arena. The young man took the hint, abandoned wheat speculation, and is now a prosperous and rising member in the real-estate business in Chicago.

"Our chief reason for publishing the above is to demonstrate that the chances in grain speculation and the art of divination are about equal, with the chances in favor of the latter. The astute astrologer, in the first place, knew that he stood as good a chance for the success of his customer in advising him to act directly contrary to the opinion of the Board of Trade man as in accord therewith, while in the event of the former it would be considered something wonderful and supernatural. When his client applied to him for advice the second time, he, knowing the uncertainty of risking instructions upon another speculative grain deal, with great shrewdness, and in order to save his reputation as a diviner of future events, hit upon the pretty safe plan of counseling his customer to abandon further speculation in grain and devote all his energies to the prosecution of his own legitimate calling. Nothing, however, can shake the absolute belief of our young, steady and sober Chicago real-estate man in the foretelling of events by the aid of astrology."

IN AN article on "Breeding New Wheats," in the "World's Work" for May, Mr. W. S. Harwood says:

"The work of wheat-breeding began many years ago on the great Vilmorin estate in France. M. Henri Vilmorin carried on extensive experiments in the creation of new breeds, more than a thousand new wheats having been tested by him.

"Ten years ago similar work was begun at the state institution in Minnesota, not only to create new breeds of wheat, but to carry them forward through a series of years until enough wheat of a superior variety should be accumulated to enable the farmers to make the final test themselves. This work has been carried on at no expense to the farmer, for all the results are for the benefit of the public.

"To create a new wheat, the pollen from the flower of one wheat must be artificially transferred to the stigma of another wheat. Wheat is a self-fertilizing plant. Left to itself it will reproduce itself throughout endless centuries. Great care is necessary in the work, and trained men are essential. As soon as the pollen is transferred—which is done about four o'clock in the morning at the hour when the wheat florets open—the head of wheat is incased in a tissue sack, so that the work may not be interferred with by any pilfering insect or bird. Two of the best-known varieties are selected, one for the father, the other for the mother of the new race. When the harvest comes it may be that the new wheat has some of the poor, and few of the good, characteristics of the parents; or the reverse may be the case.

"From the single head which results as the first harvest only a handful of kernels is threshed out. This handful is of immense importance, for these kernels may become the source of a mighty race, destined not only to supplant the old wheats, but to add enormously to the wealth of the world. But the last results are slowly won, for the first harvest is very meager, and the second and even the third are small. But after a number of years enough wheat can be garnered to sow the twentieth of an acre; and then comes tangible results. To breed a new wheat requires infinite pains and patience. It has taken ten years to bring the new wheat varieties at the Minnesota Experiment Station to the farm test.

"From the hour of the creation of the new wheat in the gray of a summer morning, throughout its life, a careful record is kept of every event in its history in a book, which is the record of the wheat's life.

"Selection plays an important part as well as breeding. At every step only the best wheat kernels and wheat stalks are preserved; defectives are rejected. No effort is spared to give the new wheat the best possible start in life. In some ways the selection may be considered more important than the breeding itself. During these experiments nearly five hundred wheats were thrown away as deficients. Out of the entire number bred less than a dozen were retained. A number of these kept for future trials were especially prolific, registering as high as eight to ten bushels an acre above the old wheats planted alongside of them and receiving exactly the same treatment.

"It seems fair to say that the increase of the new wheat over all old varieties will be at least two bushels an acre. In the three states of Minnesota, North Dakota and South Dakota there are on an average about fifteen million acres of land planted to wheat. When the new wheat is in use over this region an increase of only two bushels an acre will make a crop at least thirty million bushels larger than the old varieties would have yielded."

COMMENTING on the violent break in prices in the stock market which occurred during the second week of May "Bradstreet's" says:

"Speculation received a check at the end of last week from higher rates for money. This week the stock market had a severe break, amounting almost to a panic, caused by the events arising from the Burlington deal and the struggle for control of the Northern Pacific property. These developments, as is always the case with the factors which arrest the progress of a bullish speculation, were unexpected by the street, and came at a time when the outside public was crowding into Wall Street en masse and buying stocks, if not recklessly, certainly with little further regard to intrinsic values. The material prosperity of the country and the unprecedented abundance of capital, as has been pointed out in these columns, furnished a basis for the appreciation in prices, while the perfection of the banking system which has been attained in recent years, together with the apparent harmonious relations between the larger financial interests of the country, seemed to give assurance that the bull movement could be kept up indefinitely, subject only to the incidental reactions which are necessary and even healthy accompaniments of such conditions as have recently prevailed.

"This week's events, however, compel a serious modification of such views. It is now demonstrated that the idea of a "community of interest" does not cover the whole railroad field, however applicable it may be to some of the railroads which operate within identical geographical sections of the Union. The differences which have broken out between the Hill-Morgan interests, representing the Great Northern-Northern Pacific alliance, and the Harriman-Kuhn, Loeb & Co. party, in control of the Union Pacific, show that there is room for struggles between individual interests just as severe and destructive to speculative values as anything which occurred in the days of Commodore Vanderbilt."

THE ON-LOOKER

WHEN occasion affords, I enjoy an evening spent in the "smoker" of a Pullman railway-coach. A good listener usually has his ears full, and there is constant revelation of modern ways of thinking and doing. These people talk "shop," and it is for the reason that they do so that they talk interestingly. A man converses best about that of which he is fullest, and nine times out of ten the enforced idlers of a Pullman smoking-apartment are ready to exchange views along the lines that seem all-important to them. Schemes are unfolded for the making of money. One strapping young fellow is fresh from California, and he is just a bit self-conscious as he lays down the law about the oil deposits in that state. He knows where the oil must be, and finally out comes a little map showing his leased lands. A company of fifteen, of which he is one, has leased a big tract, paying the bagatelle of a thousand dollars each for the option, and in all probability (?) this tract must have a market value of fifteen million dollars before a year rolls round.

A friend writes urging me to go into partnership with him in rice-growing down South. His enthusiasm is based upon some estimates of fellow-travelers. Some time ago it was coffee plantations in the Sandwich islands that allured some of our company for the evening. A scheme—one for getting rich quickly—is the possession of an up-to-date fellow nowadays, and in congenial company he produces it for general admiration.

By the side of all this how slow the farm! exclaims some lad. Seemingly yes! But we must stop and get true values. The final outcome of the scheme is rarely related in a subsequent party. Usually there is failure. If it was only a "side-line" of the traveler it did not wreck him financially and he may yet enjoy the luxury of Pullmans, but he is not interested in past failures. He has a new short cut to wealth or he is letting the other fellow do the talking. If the scheme was more than a side-line, if the capital was risked upon it, then is the schemer not of the party. He is economizing in a common day-coach. So we do not hear of the failures. Let us make an estimate, and then you accept it or not, just as you will. It is only a guess. Of one hundred boys going to the city only three arrived at the dignity and comfort of this company that has furnished us a text. Of the schemers of this company only one of every thirty makes big winnings from their ventures. That makes the chance about one in a thousand. But when the one does land upon his feet among the rich, the advertisement of it is very much in proportion to the wonder that he did land, and the report fills the air.

Much more money is lost by taking long chances than won. Once, while in New Orleans, I strolled in to see the drawing of the Louisiana lottery, which then had a notoriety more than national. It was interesting to watch the faces of the spectators as the drawing proceeded. There were many bushels of tickets in the big wheel, and the number of prizes in the small wheel were so very small, and grew less so very rapidly. There were the anxious faces of some who had built upon the possibility of a dollar drawing a prize of thousands. How they could have faith in winning when the prizes were so few in proportion to the tickets I could not see. But there is an egotism in many of us that is our undoing. Our chances seem to us greater than those of others. And thus the winning of the capital prize allures, be it in an avowed lottery, a stock exchange, a mining-camp or other place where chances are long and slim.

There is a prevalent desire for money one does not earn and has no right to expect. It is clear-cut covetousness and a willingness to try to get another's money without rendering an equivalent. The best foundation for personal wealth is service rendered. That kind of riches has staying powers. The marketing of the products of one's skill, or the marketing of skill itself, means honest exchange, and the money received for them is honest. The young man who requires the kind of skill that is in demand is sure of income, and certainty is safer and more satisfying than chances, no matter how enticing the latter. The former may not be as brilliant in color as the "system" that looks to be a winner in the world of venture, but it brings more dollars and fewer regrets.

O—L.

ABOUT RURAL AFFAIRS

Profitable Farm-work Many farmers of Europe make an extremely long working-day of it. They rise at three o'clock in the morning, do their chores, feed, and start for the field during spring at five or six o'clock, then keep at it, with a little intermission for dinner, until night sets in. I have known farmers in this country to follow a similar plan; but it is questionable in my mind whether that is the most profitable. Men and teams are overworked all the time, and at no time do the best work. Probably the plan advocated by the California "Fruit-Grower" in its last edition would be found far better. It is as follows:

"Instead of rising at four o'clock, or earlier, suppose the farmer rises at five o'clock, does the feeding and chores, breakfasts from six to half-past six, and gets into the field at seven, where he makes the team assume a good brisk walk, and keeps steadily at it until half-past eleven. Don't allow the team to drag, and don't sit down on the plow-beam or other implement every ten or fifteen minutes to rest. Let rest be taken at some other time. Unhitch at half-past eleven, dine from twelve to half-past twelve and be back to the field at one o'clock. Keep up the same pace in the afternoon that was maintained in the forenoon and unhitch at half-past five. Eat supper from six to half-past six, and retire at nine or half-past nine instead of eight. Nine hours, or at most ten, well employed in the field is enough for man or beast, and more will be accomplished than by dragging through twelve or fourteen hours. Team and man will hold up better, and the latter will have time for chores, for study and for mental improvement. He will be able to keep himself posted on the various topics which interest him."

Acid Fruits The currant has for years been my favorite fruit for canning purposes. Its pleasant acid is cooling to a feverish stomach, quenches thirst in hot summer days, and seems to tone up my whole system after one of my spells of indisposition, headache, etc. I am also convinced (although there is no positive proof) that currant and similar acids can prevent or cure rheumatic ailments and kill the germs of typhoid and other fevers. The flavor of the canned currant is especially pleasing to my taste, and for that reason I usually have done up a good many, and none ever goes to waste. The only thing I find objectionable in my canned currants as I used to have them are the skins and seeds. My preference for the currant flavor, however, has always made me overlook these objections, but the people of my household never did share fully my pronounced liking for this fruit. "Too much seed and skin," was their cry. A year ago, however, I got hold of one of the fruit-presses and colanders made expressly for the purpose of extracting the juice and pulp of fruits, especially of soft ones like currants, berries, grapes, etc. I squeezed most of my currants through this press before canning them, and thus got rid of the seeds and skins. Now the whole family likes my currant sauce, really to my sorrow, for I now have to share with the rest what I used to have almost entirely to myself. It makes a big difference in the quality of the sauce, indeed. It is truly delicious; so much so, indeed, that my folks are resolved to treat all other soft fruits, raspberries, blackberries, grapes, etc., in short, anything that can be improved by the removal of seeds and skins, henceforth in the same way. Last spring I planted an extra hundred currant-bushes—namely, seventy-five Marshall Wilder and twenty-five Imperial—the former the best of the reds, the latter the best of the whites, for the very purpose of having plenty of currants to can. The plants have made a good growth, and at the present time promise a comparatively large crop of fruit.

Animal Shows Some of the illusory pleasures of boyhood days I missed. The modern circus had no existence for me, even in my imagination. But what a stir it made in the town when one of the traveling menageries put up a tent and gave us a chance to see the wild animals—all for a fee of even less than a dime! Animal-life always had a wonderful charm for me. Whenever I could get hold of some zoological book, with or without pictures, I found no rest until it was read over and over again. The great yearning of my boyish heart was travel—travel in foreign lands—and this for no other reason than to have a chance to see foreign animals, wild beasts, beautiful birds, and possibly exotic fruits. My early tastes were somewhat "Rooseveltian." I was longing for the time when I might hunt big lions and tigers and hippopotamuses, giant turtles, and snakes and crocodiles; but in the meantime even a small snake or spotted lizard would catch my fancy, and I would have been willing to walk fifty miles for the possession of a small turtle, a creature which was not found in the land of my birth. I find that other boys are constituted pretty much on the same lines. They like to see wild animals, and when they have seen them in menageries or zoological gardens, then they desire to know something about their life, habits and where they are found in the wild state, and, in fact, everything connected with them. For these reasons I consider animal shows of great educational value, and I never offer much objections when my boy (or boys) wants to go to a circus that happens to be in the vicinity and offers a good animal show, provided it does not happen too often. I have seen almost every species of animal that is kept in captivity, and yet I must confess that the feature which attracts me most and excites my interest more than any other on the Midway of the Pan-American Exposition is the Animal Show and Arena, which seems to be the most complete and interesting collection of wild beasts ever brought together.

Farmers' Friends Every creature that in any way assists the soil-tiller in his warfare against his insect and other enemies has found in me a firm friend and defender. I let no snake be killed on my premises if I can help it, because I know that the smaller ones live mostly on insects, and the larger ones mostly on mice and other small animals. Even for the alligator I have had some kind words as for a destroyer of rats, rabbits, raccoons, etc. For that reason I was very greatly interested in the announcement that Professor Argo's advertisement in Buffalo papers for two thousand wild rats and mice has set nearly every small boy in the city to purchase traps with which to catch these rodents, and that in the course of the season the city of Buffalo may be expected to be freer from rats and mice than for many years. All this is owing to the presence of the animal show. Professor Argo has charge of its aquatic and reptilian departments, and needs the rats and mice in his business; namely, as a menu for his crocodiles, alligators, giant bats and snakes.

American Pomological Society It was in 1885, at Grand Rapids, Michigan, when I for the first time attended a session of the grand old American Pomological Society. And what a treat it was for me! The discussions were teeming with points of vital interest to every practical fruit-grower. What a body of men that was! Almost every man prominently connected with the development of the American fruit industry, both in its scientific and in its practical relations, seemed to be present. There for the first time I met, and had the privilege of conversing and consulting with, such men as the late Patrick Barry, then president of the society, and J. J. Thomas, both of them authors of standard works on fruit-growing and the best experts in this field then living; Judge Parry, of New Jersey, who had given us the Keiffer pear and was prominent in booming nut culture; Peter M. Gideon, the originator of the Wealthy and other valuable apples; Professor Munson, of Texas, the great grape expert; Professors Thos. Meehan, Arthur, Lazenby, Budd, Cook, and many other representatives of experiment stations and the department at Washington; Mr. Caywood, who had given us so many good new grape and small-fruit varieties; Mr. Engle, from Pennsylvania, to whom we are indebted for the Paragon chestnut; Mr. Joslyn, who had shortly before introduced the Fay currant; S. T. Hubbard; S. D. Willard, of Geneva; Dr. Hoskins, from Vermont; Parker Earle, Charles Garfield, Chas. L. Watrous, Charles Green, Mr. Ellwanger, etc. The quality of the discussions may be inferred from the mere mention of these names. Since then I have attended a few more sessions of this society (at Boston, Washington, etc.); but for some years the meetings have been held so far out of my reach (in Florida, on the Pacific coast, etc.) that I have not found it practicable to attend. Before me now is the official announcement that the twenty-seventh biennial session will be held at Buffalo on September 12th and 13th. Wm. A. Taylor, 55 2d St. N. E., Washington, D. C., is secretary, and the biennial membership fee has always been $2.00.

T. GREINER.

SALIENT FARM NOTES

Poultry-Netting Is queer stuff to make a fence of unless one understands how to manage it. I have just put up a roll, and it looks as smooth and straight as if it had been manufactured on the posts. Several farmers have called to ask me how the job was done so neatly. Said one, "You should see a string of it that I put up. It is kinked and curled and wopper-jawed all along, though I pulled and stretched and tried in every way to straighten it. The more I pulled and jerked and spread the wire the worse it got." I have put up a great many rolls of this netting, and excepting the first have had no difficulty whatever with it. The first roll got a little kinked, and, like most beginners, I attempted to stretch and pull it into shape, and it got worse every pull I gave it. Finally I was obliged to set a stake every four feet to hold it in anything like fence shape. The next roll put up was managed differently. I had learned that one cannot go up and down hill with the same roll without cutting it. After setting the posts I leveled the ground and made it perfectly even the whole length of the roll. Then I drove six-penny nails about half an inch into the posts four feet above the ground, having them as nearly as possible in a line from one end to the other. The netting was then unrolled, having one edge of it close to the posts and the ends weighted down. Beginning at one end I carefully turned it up, taking care to not bend or twist it, and hung it on the projecting nails. When hung I went along it, raising or lowering the nails a very little wherever there were indications of a kink. When it hung perfectly even its entire length it was stapled to the posts at top and bottom and in three places between. It was put up six years ago and is still smooth and even except in one spot, where an excited cow driven by two butchers plunged against it and was turned completely over backward. Where her nose struck the fence there is quite a bulge, and I was obliged to set two stakes to straighten it.

If one wishes to go over rising ground or across a hollow place he must draw a straight line as far as possible, put up the fence on that portion, then cut the wire and begin again. It must be very nearly on a straight line from one end to the other or the fence will be kinked, bent in or out and unsightly. Wherever this netting is used for fencing poultry-yards, garden or lawn the posts should be sawed off six inches above the netting and a barbed wire stapled along their tops. This will effectually prevent animals from breaking the netting down and boys from climbing over it and crushing it down. I have used this netting between the garden and pasture several years and stock has not injured it in the least. Both cows and horses put their heads over it, but the barbed wire prevents injury to the netting. Last year I had a lot of rape growing near a netting fence not topped with a wire and I tied a cow to the fence. After filling herself with rape she put her head over the netting and crushed it to the ground. Last winter chicken-thieves were quite active in this locality, and I made it a practice to quietly slip out to the poultry-houses after putting out the light and before retiring to see if everything was right. One night one of these gentry was evidently investigating the fastenings of the doors, and seeing or hearing me approaching took to his heels. He ran against the netting and was thrown down backward, but springing up again he grasped the top and plunged over, crushing it down badly. If there had been a barbed wire at the top, as there is now, he would have been severely lacerated or I would have got him. When once the netting is crushed down it is impossible to straighten it up again so it will look well. It is easier to cut the crushed part out and replace it with an entirely new piece.

Netting makes a very pretty lawn fence for a lawn when climbing roses or other vines are trained on it and kept neatly trimmed. Any trailing or climbing flowering plant or vine may be spread upon it and fastened with bits of twine or fine wire. It is not a good idea to train woody vines through the meshes of the netting, because that makes them difficult to remove when dead or unsightly. I have either trained or seen trained on such fences climbing roses, wistarias, clematis, honeysuckle, trumpet-creeper and grapes, and with a little snipping occasionally to prevent straggling they all looked neat and tasty. There are two kinds of poultry-netting. One is galvanized before and the other after weaving. I very much prefer the former because it is the most durable.

FRED GRUNDY.

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OUR FARM

FARM THEORY AND PRACTICE

CLOVER HAY IN A WET SEASON.—One year ago attention was called in these columns to a method of making clover hay in threatening weather that was giving satisfaction to a few men who were using this method. When I first learned of it my supposition was that it was something practically new, but some assure us that this is not correct. Be that as it may, the possibility of making quite good clover hay in pretty bad weather was not understood by many of us, and the experience of these men was helpful. Last year there were many small experiments along this line, and farmers demonstrated for themselves that good clover hay can be made by cutting and cocking in showery weather, and that it is better to go ahead and cut the clover in such weather than to let it get overripe waiting for good weather. Clover deteriorates rapidly in feeding value after the heads turn brown, and the cutting should be done before any large percentage of blossoms reach this stage. The loss by delaying harvest is serious.

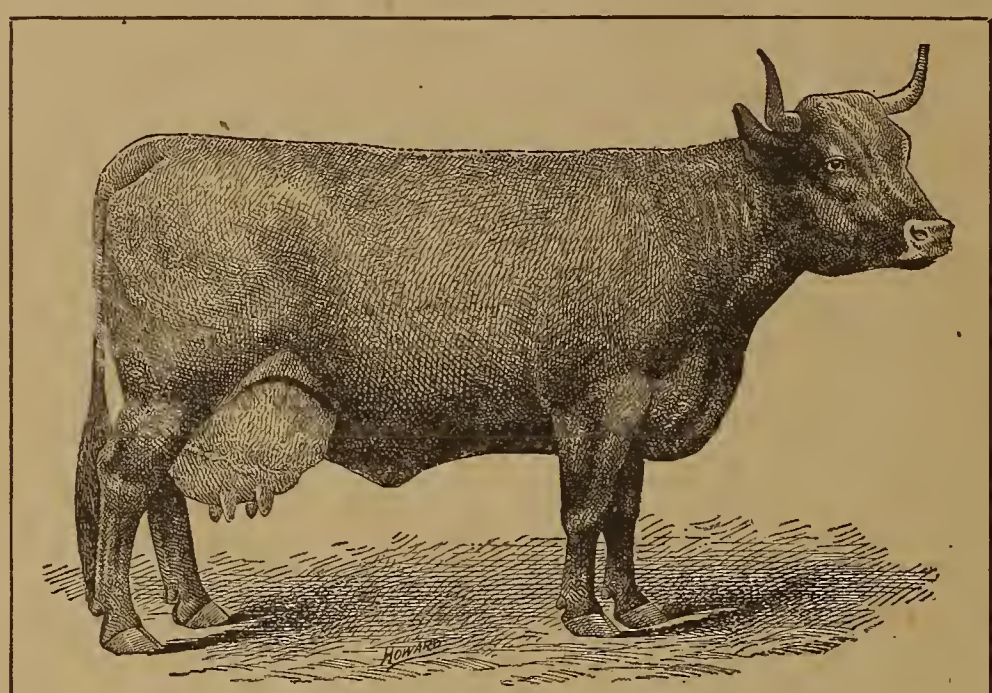
FOOD VALUE OF CLOVER.—There is not full public confidence in experiment-station figures on the value of clover hay properly made. This conclusion is forced upon one who observes the common treatment of clover. It is timothy hay plus the muscle-forming element in bran or gluten-meal; it is timothy or corn stover plus the growthy element in oats. This is not accepted by many simply because they either do not make the hay at the right time and in the best way, or, having such hay, do not test its feeding value with timothy by cutting off part of the grain ration when feeding the clover, and thus learn that the extra protein, or valuable strength, is in it. If all did this the station figures would be known to be right, and, far more important, the harvesting of clover would be attended to more carefully than the harvesting of wheat. Clover is at its best when in pretty full bloom and before many of the most forward plants have turned brown. But there should not be too great immaturity. We seek the best average, and that means some brown heads —not more than one third.

COCKING CLOVER GREEN.—In dry weather clover hay is easily made. There are various ways, all of which have their advocates. The only point is not to let the leaves become brittle, as they will when exposed many hours to the sun. But when a week of threatening weather comes in with the full bloom of the clover the outlook for good feed formerly seemed dark enough. Now it is known that the thing to do is to keep the mower going between showers, and to keep the clover cocked up closely after the mower—not more than one to two hours' exposure in the swath. This secures wilting, and nothing more. If the clover be partly cured before being put into the cock it will neither turn water nor remain bright, but green clover barely wilted will lie snug, and it will generate heat to throw off the moisture and cure itself. If the cocks are made large and pointed at the top they will burn at center and top, ruining the hay, and it follows that the cocks should be made small and flat on top. Three feet in diameter and three feet high is about right.

SOME CAUTIONS.—I should not like to adopt this method at the end of a rainy spell of weather; several days would be required for the curing, and then, very naturally, another rainy time might be expected. After a few days of unsettled weather we count upon one or two fair days. If the cutting be done during the showery days the curing is progressing by reason of the heat generated, and when fair weather comes a little airing by separating the cock into three or four forkfuls set up on edge makes the hay ready for the mow. I should fear a heavy rain after the hay has cured, as it would not then generate heat and dry out. But four or five showery days on green-clover cocks do very little harm. They cause them to turn brown on the outside, but the air does not enter freely to the depth of an inch, and the hay comes out bright. As in all other farm-work, judgment is needed. Cut clover at the right time. If weather is fair, hasten the curing as rapidly as possible without injury to quality; if weather is threatening, cut, put into small flat cocks while limp as a rag and let the clover cure slowly, trusting that a little good weather will follow a season of showery weather. Then air an hour and draw to the mow. The only serious risk is a heavy rain after clover has cured out in these cocks; but it is a risk worth taking to get early-cut hay.

COW-PEA HAY.—We learn as we grow older, or should do so, and I now incline to think that it has been a mistake where cow-peas grow fairly well in the North to treat them wholly as a manurial crop. This I have done, and they are a great fertilizer, but the difficulty of making the vines into hay should not deprive us of this rich feed. The yield is not so great as further south, and fall is a bad time for curing any green growth; but there is more muscle or milk in a ton of such hay than there is even in clover. Corn and timothy call for bran, gluten, etc., to balance the ration, and too much money goes in this direction if it is feasible to grow the protein upon the farm. Cow-pea hay is full of it, and more experimenting with its curing is going to be profitable. In the South, where the vines ripen for harvest in warm weather, many claim to make the hay without great trouble. The vines are sappy, and several days' curing in cock is necessary.

The matter is mentioned now because the seeding should be made very early in June in the North. The latter part of May is better yet. The Black is all right for the southern parts of Pennsylvania and of the states north of the Ohio River. Further north try Warren's Extra Early. Seed is high this year. Try drilling in one bushel an acre, using a common grain-drill. DAVID.



BROWN SWISS COW—BRIENZI 168

Brienzi 168 was imported from Switzerland into Connecticut in 1882 and became the most noted cow of her breed in this country. More than this, she produced the largest quantity of butter-fat in a day ever recorded in America at a public test. At the Chicago show mentioned above (1891) her average daily record for three days was 81.7 pounds of milk, containing 3.11 pounds of fat. This was equivalent to more than 3½ pounds of butter a day. The likeness of the cow was made at that time. She was then 11 years old and weighed 1,410 pounds. She was shown at numerous state fairs between 1886 and 1893, and always took first premium in her class; this was her reward at the Columbian Exposition. Calves of this cow of both sexes have also been first-prize winners at different ages at state fairs in Illinois, Iowa and Missouri.

THE BROWN SWISS COW*

ORIGIN AND HISTORY.—Switzerland has been famous as a dairying country for some centuries. It is especially noted for cheese, and it is said that seventeen different kinds are regularly exported to other countries. Two distinct races of cattle contribute to these products, and both are excellent dairy animals. In many respects they are unequaled by any of the other breeds of continental Europe.

The Brown Swiss is the breed better known in the United States. It is called also Brown Switzer, but more properly Brown Schwyzer, from the Canton Schwyz, where the breed originated, or at least has been bred longest and is still found of truest type. It is now common to the other cantons of eastern and central Switzerland and has a fine reputation throughout Europe. These cattle have been especially successful as prize-winners at Paris, Hamburg and other large exhibitions of live stock.

CHARACTERISTICS.—The Brown Swiss may be placed in the second class as to size among the distinctly dairy breeds. They are substantial, fleshy and well proportioned, with very straight, broad back, heavy legs and neck, giving a general appearance of coarseness. But when examined they are found to be small-boned for their size and to possess a fine, silky coat and rich, elastic skin, with other attractive dairy points. Although generally described as being brown in color, the brown runs through various shades, and often into a mouse color and sometimes a brownish dun, especially for the saddle or body. Head, neck, legs and quarters are usually darkest in color, often almost black. The nose, tongue, hoofs and switch are quite black. Characteristic markings of the breed include a mealy band around the muzzle, with a light stripe across the lips and up the sides of the nostrils, a light-colored tuft of hair between the horns, and a light-colored stripe extending all the way along the back to the tail. The eyes are full and mild, but bright, usually black. The horns rather small, white, waxy, curving forward and inward, with black tips. The ears are large, round, and lined with long, silky hair, light in color. The barrel of the body is large and well-rounded. The udder and teats are large, well-formed and white, with milk-veins very prominent. The cows often carry remarkably well-shaped escutcheons. The animals of a herd are generally even in appearance, showing careful breeding extending through many generations. Bulls and cows are alike docile and easily managed. The cows are so plump and compact as to appear smaller than they really are. Mature animals weigh from twelve hundred to fourteen hundred pounds, and often more; bulls run up to eighteen hundred pounds and over, yet are not so much heavier than the females, as in most breeds. These cattle are extremely hardy and very active for their size, being necessarily good mountain-climbers in their native country.

MILK AND BUTTER RECORDS.—Developed as a dairy breed primarily Brown Swiss cows yield a generous flow of milk and hold out well. Good specimens may be expected to give an average of ten quarts for every day in the year. Six thousand pounds a year is an ordinary record, and single instances are known of eight thousand to ten thousand. One Swiss cow owned in Massachusetts produced, by accurately recorded weights, eighty-six thousand three hundred and four pounds of milk before twelve years old. The quality of milk is above the European average, three and one half to four per cent of fat being usual. The cow mentioned above made a butter record ranging from five hundred pounds to six hundred and ten pounds a year for four years, but this was exceptional. Ordinarily twenty-two pounds of milk of this breed will make one pound of butter, and sometimes it does better.

The description given indicates that these cattle are good for beef as well as for the dairy. They are almost always full-fleshed, easily kept so, and readily fattened when not in milk. The flesh is said to be fine-grained, tender and sweet. A barren heifer in Minnesota weighed sixteen hundred and eighty pounds, a mature cow in New York, fattened for the butcher, weighed nineteen hundred and twenty-five pounds, and made fifteen hundred and fifteen pounds of beef. A pair of Swiss steers at thirteen months old weighed twenty-two hundred pounds. The calves are large, often one hundred pounds at birth, and make a vigorous growth. Weights of four hundred to six hundred pounds at four to six months of age are not uncommon. Altogether the Brown Swiss is able to present as strong a claim as any breed to being a profitable "general-purpose cow."

In their native country these cattle are ordinarily fed nothing but hay, grass or other green forage throughout the year, but they respond promptly to more various and generous feeding.

* Illustration, by permission, from Alvord, U. S. Dept. of Agriculture, Farmers' Bulletin No. 106.

BELGIAN HARES, WILD RABBITS, WOODCHUCKS

HOW TO PROTECT YOUNG FRUIT-TREES.—The innocent Belgian hare has frightened many people. The Illinois State Horticultural Society recently adopted a resolution in favor of exterminating the poor creature. The editor of the "American Fruit and Vegetable Journal," of Chicago, says in an editorial: "Let every fruit-grower petition the legislature to enact a law to prohibit the breeding of this pest (the hare). Of all the humbugs, etc., this is the greatest."

Let us reason a little. The Belgian hare is a rabbit, and has the same habits as the common tame rabbit and the wild rabbit. Neither of these has so far developed into what can rightfully be termed a pest in our Northern states, and it is not reasonable to suppose the Belgian hare ever will. Since the wild rabbit has been placed on the free list, so to speak—it may be hunted with ferrets or otherwise the larger part of the season—the animal has become almost extinct here in this part of New York state. This in face of the fact that we have a great deal of rough, stumpy land uncultivated, covered with small undergrowth, side-hill land, stump fences, etc. If the wild rabbit can hold its own anywhere it could here, with so many hiding-places, but I saw only two rabbit-tracks in the snow last winter. Three or four years ago they were to be found everywhere. It was an easy matter then to secure a few rabbits for the table. The ferret cleaned them out in a few years. But even then, when rabbits were plentiful and tracks could be found every winter in my young orchard, I had never a tree injured by them. The Belgian hare is not to be feared even so much as the wild rabbit.

Now, I do not mean to say that none of my trees had never been injured at all. Many were, in particular those near the fences. It was a puzzle to me for a while what did the mischief. I do not remember of horticultural writers ever speaking of damage to young trees except in connection with rabbits and mice. Evidently there was some unknown enemy silently at work. He finally was discovered in Mr. Ground-hog, alias Woodchuck. It required a great deal of cunningness on my part to catch him at his work and in "my traps." It was often necessary to bring half a dozen traps into use, some slightly covered with dead grass or leaves, others set openly around the entrance of his den, to persuade him to put his foot in between the harsh, iron claws. But I got him at last. When the traps were of no avail I brought the rifle to bear on him. I procured a fine Winchester repeater, thirty-eight caliber, and when I could not get onto him from a short range I raised the sight and fired from a long range. I kept up a constant warfare and killed in one season nearly one hundred on my own farm and adjoining ones. Another friend within half a mile killed one hundred and fifty woodchucks with a twenty-two caliber rifle the same year. We are trying to thin out this pest—and here the word "pest" is rightly used, for he makes himself obnoxious and is destructive not only in the orchard, but in the clover-fields, the bean and melon patch; he is fond of pears, plums, sweet apples, etc., and the damage he does can hardly be estimated. I would advise the Horticultural Society of Illinois to petition the legislature to forbid the breeding of woodchucks. Let us exterminate him, but give the rabbit and the hare a chance.

When the orchardist finds his young trees being injured from day to day he will naturally get very much out of humor. It will not do to wait till one can catch the mischief-maker. I have found that ordinary wrapping-paper wrapped around the tree up to eighteen or twenty inches above the ground, tied loosely in several places, is effective and turns every woodchuck. Eight or ten canes of the wild red raspberry set around each tree and tied with twine in two or three places answered as well.

FRIEDEMANN GREINER.

ANGORAS.—Before the Transvaal war South Africa owned more Angora goats than any other country engaged in the production of mohair for sale on the world's market, but it is now reported that about fifty per cent of the goats in that unfortunate country have been killed off during the war, so that the price of mohair is apt to advance.—Breeder's Gazette.

MOTH-TRAPS

The owner of the orchard, vineyard or garden infested with injurious insects who sets a lantern moth-trap is likely to be highly elated upon taking an inventory of the catch, after setting a few hours. He will conclude that the supply of insects must be greatly reduced in a short time if he keeps his lanterns going, which certainly will be the case.

But before going into the matter too deeply he will do well to stop and consider a little. Every farmer should be an entomologist; at least he should have a knowledge of his enemies, their strong points and their weak ones. He should make an effort to check his natural foes. To do this he should assail their weak point or assist natural enemies in exterminating them. With this view the birds are protected to the extent that they often become a nuisance. It is with this end in view that the moth-trap is purchased and set. And the results are very gratifying to the man who does not know that there are insect friends that do far more for him than the birds he protects, his spraying-machine and the trap combined. To one versed in insect lore, who understands the habits of these little so-called pests, the summing up of the experiment will tell a different story. Of the real enemies of the farmer and gardener there will be but comparatively few; of the insects that prey on them, many. Chief among these there will be those of the ichneumon family, who are the deadliest of enemies to injurious moths and insects. And there will be other insects that sting or lay eggs in the bodies of the little pest, causing death in a short time. Surely these friends are worth considering and protecting.

Before using the trap the troublesome insects should be studied, and their enemies as well; and should it be found out that there are more friends than enemies being slaughtered it is time to go out of the trapping business. Doubtless there are many times and places where the moth-trap would come in play to the advantage of the farmer or fruit-grower; but there are other times when its use will have other than the desired effect. J. L. IRWIN.

THE FRUIT TEST

"Ye shall know them by their fruits." The saying is true—and we are so slow to act as if we believed it! The ultimate test of any plant is its fruit. You may see a dozen different apple-trees of as many different kinds without being able to distinguish them by their branches, their leaves or their blossoms; but the ripe apples will tell the story. You may not be able to say which of two fields of young grain is wheat and which is oats; but when the grains are formed you will know. You will find it still harder to tell the wild from the cultivated oat. The ripened fruit will reveal the secret; the shriveled grain is the fruit of the wild oat, or you may know it by the twisted barb which tips each grain. The fruit is the last and truest expression—the highest exponent, if I may use the word—of the plant.

The conduct of the man is the highest and truest expression of himself. A man cannot live a lie. If his words and his life do not harmonize, the words lie; the life is true. We may not be able to interpret his motives or his words; but conduct is the fruit, and the ripened fruit is the final test. "Even so every good tree bringeth forth good fruit; but a corrupt tree bringeth forth evil fruit." D. W. WORKING.

A FEW PRACTICAL SUGGESTIONS

Whatever benefits agriculture benefits the state, nation and world.

Rural free delivery places the producer in daily touch with the world's markets.

This country has now a greater purchasing capacity than ever before in its history.

The first great lesson for the average farmer to learn is that no permanent success is likely to be achieved unless pencil and paper are made to show the cost of production, since careful management and accuracy are essential to success.

Success in the Danish husbandry is mainly due to the technical education of the agriculturists, which, in connection with a co-operative system, enables them to secure the advantages of new scientific methods and improved appliances, all of which tend toward profitable production.

The time has now come when the successful farmer must study crop statistics gathered from all parts of the world. The world's supplies, surplus or deficiency and crop prospects of coming harvests must be taken into consideration. No Rip Van Winkle methods will serve the progressive farmer of to-day.

If the transportation interests would but deal justly with our American millers the manufacture of wheat into flour would be increased still more rapidly than it is being done. It is especially gratifying to know that the amount of flour in proportion to the amount of wheat exported is being annually increased. The exports of wheat were ten million bushels less in 1900 than in 1899, and fifty million bushels less than in 1898. This establishes the gratifying fact that an increased amount of bran and mill-feed is being fed to stock in this country. The result can but be of the most beneficial character, as we are now beginning to return to the soil much of that which we have been heretofore exporting, to the material advantage of farmers in foreign countries. W. M. K.

WIND-POWER

Wind-power is doubtless the cheapest for pumping water on the farm. Few sections in agricultural America can be found where wind sufficient for pumping is lacking. Modern wind-wheels do not require gales for their operation, and with ordinary care troughs and tanks can generally be kept filled. At times the wheels may become becalmed and stock go thirsty. If danger of this kind is anticipated, the farmer should be all the more careful to put in ample storage capacity. It is folly to economize in the size of the tanks and troughs when there is a chance of the wind failing for any length of time. As a matter of fact, in most sections there is apt at seasons to come a calm that may last a week at a time or more, and such times on largely stocked farms tax the capacity of the tanks. An adequate supply of water in most sections can be secured by the use of windmills and storage-tanks of good capacity. A little intelligent attention to the wheel, to take advantage of the breeze, will enable the farmer thus equipped to provide water liberally for all purposes. On a number of large stock-farms dependence has not been placed in the wind, but deep driven wells have been equipped with pump and engine. This may be necessary where large stocks are carried and in sections east of the Missouri, where prairie breezes are not almost constantly on the blow; but the farmer west of that river can keep his troughs and tanks full by wind-power, and the average farm can in almost all cases be amply supplied by wind-power if tanks of reasonable size are supplied. When the wind is reasonably reliable, these wind-powers can be used for almost any operation on the farm that requires a moderate amount of power. Feed-mills, corn-shellers, hay-cutters and wood-saws may be run, and in those sections where the breezes blow freely the farmer may cheaply harness a very valuable power. But in the large establishments, where no chances can be taken and where heavy work is required, the gasolene-engine has come into the greatest favor. The first cost may seem somewhat high to many farmers, but they are certainly money-savers when in operation. They are quickly put at work, they require no skilled engineer, they are safe and they are effective. In putting in such a power the farmer should study well his needs, present and prospective, and order an engine sufficiently large for all purposes. It is not economy to be short on power.—Breeder's Gazette.

ANGORAS—THE WEALTH OF THE WILDERNESS

I have five miles of woven-wire fence on Pennsylvania hills, and know from observation and results that the fence that keeps sheep in turns dogs and keeps them out. A dog seems to think twice before going under, for he can neither go through nor over, and he hesitates to enter a place he does not know if he can get out of it. Dogs are the terror of sheep-raisers on Pennsylvania hills, but we have had no trouble since we used woven-wire fencing—reinforced by goats. At the risk of taking too much space I want to tell you of an actual experiment on Pennsylvania rocky hills during the past summer. In the spring fire burned over the piece, leaving the rocks exposed, the ground black and bare of every living green thing. Shortly after, as soon as the new growth started, a flock of sheep was placed on one side of my woven-wire fence and a flock of Angora goats on the opposite side of a wagon-road, which was fenced through the land and which served to show me what the growth would have been had there been no pasturing it down. On the side of this road was a dense growth of briers, fireweeds and weeds almost impenetrable. On the side of the fence where the sheep were pastured the briers were almost wholly gone, but the ground was covered with a white, fuzzy-top weed, supposed by me to be wild carrot. On the Angora-goat side of the fence there were no weeds in any appreciable amount, the growth of briers was very stunted and a matting of grass could be seen under all, which was entirely wanting on the sheep pasture. This, my first experiment, produced a profound impression on me. I had heard it, read it, but there is nothing like seeing it. I shall watch the result the coming year with great interest. I think no phase so aptly describes the Angora goat as "the wealth of the wilderness."—Horace Field, in National Stockman and Farmer.

MUTTON is a good meat to eat and profitable to produce, although just now one of the lowest in price. The present comparatively low price in mutton is probably due to the dullness in wool, which may be only temporary, and not to an oversupply of sheep in the country.—Farm Journal.

EXTRACTS FROM CORRESPONDENCE

FROM KANSAS.—Farmers in the East talk and write so much about manuring land and reclaiming worn-out land that I want to tell you how we do out in western Kansas. Land is plentiful here; every farmer has at least one hundred and sixty acres, and most have more. We raise wheat principally. One man with a four-horse team can put in from one hundred to two hundred acres. As it is impossible to plow all this after harvest most of the wheat is sown in the stubble with a disk-drill. This is hard on the land, but if the farmer should have to spread a heavy coat of manure over his farm the chances are that he would not live long enough to get around; therefore, when a piece of ground has produced several crops without cultivation and become tired we just let it rest after the wheat is cut, which is usually done with a header. The following spring we do not put it in corn, for that hardly pays, but let it rest until June, when it will be covered with a luxuriant crop of weeds from two to four feet high, then get onto it with a big plow and turn the weeds and old stubble under. We let it lie again without touching it until wheat-sowing time, then sow it with a disk-drill, and there is a fine chance for a good crop for more than one year. Bison, Kansas. G. S.

FROM TENNESSEE.—Franklin County is situated in middle Tennessee in the Cumberland Valley. The soil is fertile. Wheat and corn are the main crops, but we grow oats, clover, millet and many kinds of grasses; all kinds of vegetables grow in profusion; peaches, plums, pears, apples, grapes and melons of all kinds are produced in abundance. Cattle-raising is very profitable; the market for cattle and hogs is good. Mules are much in demand, and are higher in price than horses; a large number are raised here. We have many Norman horses. Winchester, the county-seat, has 2,500 inhabitants, and is well provided with railroads; it has a good normal school and free school and churches of various denominations, the colored people having separate churches and schools. There are seven roller-mills in the county, one of which is making three thousand barrels of wheat-flour a day. I find this a very healthful country. The climate is perfect; the winter is short and mild, and there is always a cool breeze in summer. The water is good and springs are plentiful. Over one hundred Northern families are locating in this vicinity, many of them coming here for health. Those with a little capital generally invest in land, and never fail to succeed in converting an old farm into a very profitable one in a few years' time. I find that Southern people are not overfond of work; hence, the intelligent Northerner has a chance of succeeding where the Southerner makes a failure. Northern people are always welcome. Winchester, Tenn. T. J. K.

FROM KANSAS.—The garden of Kansas is the Prairie-dog Valley, situated in the northwestern part of Phillips County in the northwestern part of the state. The Prairie-dog rises in the central part of Thomas County, in the western part of the state, and empties into the Republican River about one half mile south of Republican City. Its length is about one hundred and fifty miles and its greatest width is perhaps fifty or sixty feet, so you see it is not a very large stream. But the finest alfalfa in the state, if not in the whole country, is grown in this little valley; in fact, this Eden of northwestern Kansas owes its development mainly to alfalfa. The richest part of the valley lies in the northeastern part of Norton County and the northwestern part of Phillips County. Imagine yourself some lovely day in June riding down this little valley. As you ride past fields of richest green, and a whiff of the fragrant blossoms is wafted to your nostrils by one of those gentle northeasterly breezes so characteristic of this locality, you are almost led to believe that you have at last reached that place referred to by Milton. Were this the only crop it would be sufficient to attract lovers of natural beauty from all over the country. But alfalfa is not our sole dependence by any means; although alfalfa is "queen," corn is "king." Some of the bottom-lands yield fifty or sixty bushels of corn to the acre, and occasionally as high as eighty bushels. Last year three hundred and eighty-nine car-loads of stock were shipped from Long Island, a small railroad-station. Alfalfa is worth $7 or $8 a ton at present; it seldom gets below $4 or $5 a ton. The seed is worth about $5 a bushel. Alfalfa is cut three or four or even five times in a season, and it is a very profitable crop; in fact, some of the best land has been known to yield an income of one hundred dollars an acre in one season. No better location could be found for a creamery. It is an ideal place for dairy-farming, as it takes but a very small piece of ground to keep a cow, and alfalfa has excellent butter-making properties. The town of Long Island is a very prosperous little place, located on an island nine miles long and one mile wide; hence its name. It is situated in the very heart of this prosperous valley, and has made wonderful progress in the last ten years. I have taken FARM AND FIRESIDE for ten years, and I think it one of the best agricultural papers in the United States. C. E. T.
Long Island, Kansas.

FROM CALIFORNIA.—It would be no strain of the truth to say that if all the people of the Union were familiar with the greatness of this vast commonwealth there would not be room for all who would seek homes in it. But let no man deceive himself with the idea that when he has reached California he is in the promised land, that opportunities for wealth-accumulation lie all around awaiting his arrival, and that once here his troubles of looking up a home are at an end. First let him bear in mind that when he strikes one end of the state it is one thousand miles to the other end, or if he strikes it sideways it is two hundred and fifty miles to the other side. In this one commonwealth the diversity of scenery, climate and resources is greater than in all the remainder of the United States. Nowhere in the Union can a country be found in which a stranger is so utterly incapable of judging the merits of soil or resources. The writer knows no place where a man can be so sorely deceived in selecting a farm or home. In coming into California over the southern line of railroad he strikes the Colorado Desert, which lies three hundred and seventy-five feet below the sea-level—a barren waste, the home of the horned toad, scorpion, centipede, tarantula, lizard and rattlesnake. Connected with this is found Death Valley, where neither man nor beast can live even with abundant food. Before reaching the Oregon line he sees snow-capped mountains lifting their majestic heads fourteen thousand feet above the sea-level. In this radius of country lie great and grand valleys. But notwithstanding their grandeur all have their drawbacks, for no two are the same; no one valley has the same climate and the same resources as any other valley. Hence, it is the most difficult of all states for a stranger to make just the selection he desires. Let no man deceive himself with the thought that we have here a cure-all climate. While we have a variety of climates, some the most healthful in the world, there are yet malarial districts where the people shake, grin, whine, shiver and take it as a matter of course that so much shaking has to be done. All along the sea-shore catarrh and rheumatism are more or less prevalent, but no more so than east of the Rocky Mountains. Consumption in its earlier stages has been cured here, but only in the high, dry altitude of the state. On the whole the climate anywhere between the first range of mountains and the sea-coast is not pleasant, on account of the humid wind prevailing most of the time. The most desirable climate for comfort and health is found in the valleys nearest the sea after crossing the first range of mountains, which cut off the sea winds and fogs. This state, with more than one thousand miles of coast, has very many streams of water, large and small, flowing down to the sea. All along the ocean the hills and mountains come down within a mile or two of the water. Just over these mountains are found many small valleys having the most desirable climate in the state. Nearly all the streams have their source back in these valleys, and at some time chiseled a passage through the mountains, and now go rippling down to the ocean. Toro Creek empties into the sea about midway between San Diego and San Francisco; it is only seven or eight miles long. Toro Valley, as we call it, lies about seven hundred feet above the sea-level. To speak of this locality as a valley may lead the reader to believe it to be of greater scope than it really is. There live in this valley only seven families, each possessing one hundred and sixty acres of land. The adaptability of our soil and climate is general. All kinds of grains and vegetables grow profusely when an abundance of rain falls. The potatoes which took the premium at the Midwinter Fair at San Francisco grew on my neighbor's farm. Alfalfa grows luxuriantly. Of fruit I cannot speak so favorably, as there falls all along this valley in March and April from six to ten frosts, which about one year in four kill our figs, prunes, nuts, etc. Honey-bees do well in almost every part of this county which is not exposed to the sea-winds. The price of land varies throughout the state according to the environments. Land in this valley is held at from fifty to seventy-five dollars an acre for the bottom-land, with the mountainous and timber land thrown in. But prices must go up soon, as we now have a railroad, and oil is being found in copious flow in almost every part of this county. People seeking a farm home will make no mistake in coming to the counties of Humboldt, Sonoma, Napa, Lake, Contra Costa, Marin, Alameda, Yolo, Santa Clara and San Luis Obispo. While there are some grand localities in this county, there are also opportunities to make some disastrous mistakes in the selection of land. A few families seeking homes and who are not afraid of the ax and the grubbing-hoe can do well by coming to Toro Valley. A. B.
San Luis Obispo County, Cal.

Notes From Garden and Field

CONDUCTED BY T. GREINER

Spraying with Petroleum.—This year was my first experience in spraying fruit-trees with crude petroleum for the San Jose scale. The late snows and the wet condition of the soil had prevented me from doing the job in March, when it should have been done, and by the time that I found it feasible to go in the orchard, and the trees dry and in good condition for the operation, it was May, and the buds already opened. But I had to take the risk. The San Jose must die if the trees have to die, also. Spraying with petroleum is not particularly pleasant. It is somewhat smeary business. You want to wear old clothes. The Vermorel nozzle works admirably, and is just the thing you want for spraying petroleum. I can say this, that my sprayer has not had such a thorough oiling since I got it. Every valve works to perfection. By spraying when there was a little wind from the east, from that side, and another time when the wind came from the west, from the west side, I was able to give even the larger apple-trees a thorough going over, the wind carrying the fine petroleum-spray all through the tree; and as this was done from opposite directions every portion of every limb seemed to be coated with the oily liquid. I had the barrel-sprayer on a single-horse wagon, and used only a single nozzle, and no extension-rod, either. No injury seems to have been done to the buds or leaves, and at the present time the limbs are well covered with vaseline. So on the whole I am encouraged to believe that I will be able to check the spread of the San Jose scale.

Vegetables for Short Seasons.—A reader in Idaho wants to know what varieties of cabbages, tomatoes and melons he should plant in a locality where the summer is short and nights cool. So far as cabbages are concerned I believe he might safely select almost any sort, as few of them require the whole season, and all like cool nights. For a reasonably early sort I believe Early Winningstadt, or pointed-headed sort, of midseason will be hard to beat. At any rate I advise him and others to try it, sowing seed for early as early as can be done in spring, and for fall and winter use some time during May or early June. I know from experience that there are many places in the Union where it is quite a task to bring tomatoes to maturity. In the first place, I would select an early variety, such as Maule's Earliest, Earliana, Quicksure, Mills' Earliest, or a variety of the Dwarf Upright type, like Champion Tree, Fordhook Fancy, Quarter Century, etc. Then start plants in an early hotbed or greenhouse say in February or March, transplanting once or twice, and giving each plant all the room it needs to grow short and stocky, and then plant out as soon as danger from late night frost is past. Emerald Gem is the very earliest of our melons, and at the same time the very best in quality. By all means select this.

Beans in Sod.—A Michigan reader asks me whether white beans will grow well in sod. A good clover sod is always one of the best soil conditions preparatory to such crops as corn, potatoes and beans. Corn usually does first-rate on newly turned sod. I usually plow the sod land in the fall, and then work it up with pulverizer (disk), spring-tooth harrow, etc., in spring. Sometimes cutworms will be very bad in sod ground, but by planting plenty of seed we can always succeed in getting a full stand. Usually I prefer to plant corn as a first crop after the sod has been turned over, and beans or potatoes afterward. But I see no reason why white beans should not do all right on a freshly turned sod.

Growing Horse-radish.—A Minnesota reader wants information on growing horse-radish, where to get seeds or roots, etc. When we go to our city markets, and see horse-radish offered in commission-stores for from five to eight dollars a barrel, we may conclude that there must be money in horse-radish culture, and may be tempted to go right into it. I have felt so myself, and indeed I do believe that there is a good chance for people who have the right land and facilities for growing this root. I planted a lot last spring, and the roots did fairly well, except that they failed to get the size needed to make them marketable, so will need another season of growth. To grow a crop in one year, as should be done, we must select deep, rich soil fully exposed to the sunshine. The plant does not produce seed, but is invariably propagated from sets; that is, pieces of root. When I take up an older plant for use or market I find on it a lot of smaller roots say of pencil thickness. These are the ones selected for sets. I cut them square at the lower end and somewhat slanting at the upper end, and about six to eight inches long. In planting I use an iron dibble—for instance, one of my iron cow-stakes—open a hole about eight to ten inches deep, and slide one of the sets in so that the top end will be a few inches below the surface of the ground. The rows are made about three feet apart, and the sets placed about a foot apart in the rows. Then give clean, thorough cultivation.

Onion Queries.—How would you grow onion-sets in Oregon? Just as I would in New York state. I do not find it advisable or profitable to undertake growing onion-sets unless I have nice, clean, sandy loam or sand to grow them on. Prepare this land as you would for other onions or any close-planted garden crop. Mark out the first row in a straight line. Fill your garden-drill with seed, and set it to sow not less than twenty-five to thirty pounds of seed to the acre; then go along, going twice in the same row, so as to drill in fifty to sixty pounds of seed to the acre. When the seed is up begin cultivation with a double-hand wheel-hoe, straddling the rows, and keep at it. Let no weed grow. When the tops begin to die take the sets up with a trowel, throwing them into a sieve, to sift out sand and soil, and then cure and store for winter. It is a business that has to be learned, and it would not be safe for any one to go into it very extensively without previous experience. On clear, clean sand it is also possible to grow sets by sowing either broadcast or in rows very close together.——Another reader asks whether the Egyptian tree-onion is the same as the shallot. It is not. The latter is propagated by division of the bulb; that is, each bulb divides up into a number of them, and each of these divisions when planted in the fall will again divide up and produce a number of stalks and bulbs. The shallot is not much grown, to my knowledge; the Egyptian, or winter onion, takes its place entirely. This onion is quite hardy; I plant the top sets in August, and they make some growth before winter. In good soil they form immense bunches or clusters, spreading from year to year. They are the earliest green onion we can get out of the open ground, and very fair when you have no better ones. They are as easily grown as a weed, and yet usually find good sales.

THE BALDWIN APPLE AND SPRAYING

In New England, when the hill-farmers wish to give you their best, they will bring you a dark red, solid, rich Baldwin apple. Some things grow better as they go away from home, but this is not true of Baldwin. It was born in Massachusetts, and it still reaches its highest perfection on the hills of its native state. During the early winter many of the cellars under the New England homesteads are great pits of perfume. They are well stuffed with apples, and as you open the door a flood of fragrance rushes out. Western New York is a great apple country—settled originally by Yankees. The Baldwin apple is largely grown there, too, yet it has not been regarded as a first-class eating-apple until recently.

"Why," said the large grower in Orleans County, "up to this year none of our best farmers thought of storing Baldwins for their own eating. They were good enough to sell, but not good enough for home use."

"What do they use?"

"Spitzenberg, Northern Spy and Greening are the favorites."

"Did you say some of them have eaten Baldwins this winter?"

"Yes; continued spraying has greatly improved Baldwin—there is no question about it. It has improved in size, quality and appearance!"

"What else has it done?"

"That ought to be enough; but the trees are becoming more vigorous. You will see whole orchards which now hold their leaves until after heavy frost, where five years ago the trees were bare as poles before frost came. This is due to spraying, which has kept the leaves green and thrifty all through the season. Several years of this have given the old trees new life and vigor. We are satisfied, too, that spraying and cultivation have prevented the off year in our Baldwins."—Rural New-Yorker.

Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

THE APPLE-BARREL

It stood in the cellar low and dim,
  Where the cobwebs swept and swayed,
Holding the store from bough and limb
  At the feet of autumn laid.
And oft, when the days were short and drear
  And the north wind shrieked and roared,
We children sought in the corner, here,
  And drew on the toothsome hoard.

For thus through the long, long winter-time
  It answered our every call,
With wine of the summer's golden prime
  Sealed by the hand of fall.
The best there was of the earth and air,
  Of rain and sun and breeze,
Changed to a Pippin sweet and rare
  By the art of the faithful trees.

A wonderful barrel was this, had we
  Its message but rightly heard,
Filled with the tales of wind and bee,
  Of cricket and moth and bird;
Rife with the bliss of the fragrant June
  When skies were soft and blue;
Thronged with the dreams of a harvest moon
  O'er fields drenched deep with dew.

O homely barrel, I'd fain essay
  Your marvelous skill again;
Take me back to the past, I pray,
  As willingly now as then—
Back to the tender morns and eves,
  The noontides warm and still,
The fleecy clouds and the spangled leaves
  Of the orchard over the hill.

—Edwin L. Sabin, in "New" Lippincott.

INQUIRIES ANSWERED

Lycopodium.—A. S., Edwardsville, Ill. The so-called lycopodium is an evergreen nearly allied to the ferns, although at first glance the branches appear very much like the red cedar or arbor-vitae. It is a native of most of our Northern states, and is commonly found in moist soil growing under the shade of pines, spruces, etc. The root runs on the surface of the ground and sends up stems from six to twelve inches high. It is gathered in large quantities for holiday decorations. It never makes a tree, and I have never seen it cultivated. I do not think it is of any special value for cultivation. The spores of this species are used in medicine. The common name for it is ground-pine, or running pine.

Worms on Trees.—W. B. C., Nixon, La. The worms that eat the foliage off your trees can undoubtedly be destroyed by spraying the foliage with water containing Paris green at the rate of one pound to two hundred gallons. Of course, in the case of forest-trees it is a very difficult matter to spray them, but in your garden and in the case of some especially nice trees on your lawn you can well afford to do it. If you cannot get into the trees for this purpose you will find that you can carry up your spray-nozzle on the end of a long bamboo fishing-pole, providing you use a piece of light hose, and you will get very good results. I wish you would send me samples of the worms to which you refer, as I do not know exactly what you mean, although from your description of their methods of work the remedy I have given is undoubtedly the one to apply.

Pear-trees Not Bearing.—W. S. R., West Suffield, Conn. The pear-tree you have which has never blossomed may be simply a variety that does not fruit well until it has reached a considerable age. Such is the case with the Tyson. But if you have had this tree for at least seven years, and it is growing thriftily and does not fruit, I would suggest that you try the following treatment: With a sharp cross-cut saw cut through the bark entirely around the tree somewhere between the branches and the surface of the ground. Do not saw into the wood over one eighth of an inch, and only enough to be sure that you are through the bark. This will check the growth to some extent and will probably be sufficient to make the tree set fruit-buds. This should be done from the middle to the last of June. If your tree is not yet seven years old I would suggest that you let it alone.

Crown Gall.—A. H., Swiss Alp, Tex. The trouble with your trees is one that is quite common in some parts of this country, and is becoming more prevalent every year. The first report made on it was from Nevada, and since then some studies have been made upon it in almost all of the central states. It is known by the name of crown gall, and is due to the presence of the slime-mold, which is a name given to a very small organism, which acts in much the same way as other infectious diseases. This disease is easily communicated from one tree to another by contact, so that if one diseased tree is baled up in the nursery with a lot of healthy ones, the others may have the disease communicated to them. In the case of nurseries the only proper treatment is to dig and burn all the infected trees, and not to plant any trees upon that land for at least five or six years, since the disease lives over in the soil for a long time. In experiments made with this disease it has been shown that where the galls were chopped up and put in the soil near healthy trees the latter soon became diseased. It is quite possible that this infection may spread in the land by the drainage waters, and also by the woolly-aphis, which may carry the spores of it on its body in its migrations. In buying trees orchardists should be particularly careful to buy from nurseries that are free from this disease. In fact, each year emphasizes the great importance of starting right when starting an orchard, for there are so many diseases and insect pests that may be sent out with young nursery stock; and while it may scarcely appear when the trees are first planted, yet later on it may cause a great deal of trouble and disappointment. In the case of orchards which are diseased the best treatment is to remove the soil that is around the gall and cut it away, and then paint with Bordeaux mixture made of five pounds of lime, five pounds of sulphate of copper and twenty-five gallons of water.

Wild Goose Plums Dropping.—E. A. B., Versailles, Ohio. I am inclined to think that your Wild Goose plums dropped because they were stung by the plum-curculio. The only satisfactory remedy for this is jarring the trees at least once each day, preferably early in the morning, so long as the beetles are present. This work should begin early in the spring. Before jarring sheets should be laid upon the ground to catch the beetles that fall. This matter has often been referred to in these columns. The Wild Goose plum of which you speak is a variety that is frequently sterile when grown by itself. Some thirteen years ago I had charge of an orchard in Massachusetts containing some of these plum-trees, but while they were beautiful trees and flowered abundantly each year they never produced fruit until a few years ago, when other varieties of native plums which were planted near commenced to bloom. It is possible that your trees drop their fruit from such cause as this. If you will forward to me some of the fruit that falls this year I can easily tell you whether the trouble is from curculio or from lack of fertilization.

Currant Saw-fly—Cherry-leaf Slug—Cabbage-worm.—W. S. H., Seattle, Wash. The small green worm that eats the foliage of currant and gooseberry bushes is known as the currant or gooseberry saw-fly. It is an exceedingly troublesome insect, and will frequently strip the foliage from the bushes in a very short time. The eggs of this insect are laid on the rather protected leaves on the midribs, and when the young hatch they eat holes through the leaves. At this time a large number of worms will be found upon a single leaf. As soon as the leaves on which the eggs are laid have been eaten, however, they scatter all over the bush. This insect is very easily kept in check by the use of Paris green in water in the same proportion as recommended for the potato-bug. White hellebore, in the proportion of one teaspoonful to two gallons of water, is also quite a satisfactory remedy. The hellebore may be mixed with twice its bulk of flour and dusted on the foliage early in the morning, when the foliage is damp, to good advantage. There is much less danger in using Paris green for this insect than is generally thought. If the berries have not begun to color, however, it may be used without any fear at all; if they have begun to color up there is no danger from using it if a shower occurs before the berries are picked.——Probably the best remedy for the cherry-leaf slug is Paris green and water mixed at the rate of about one pound of Paris green to two hundred gallons of water.——The best remedy for the cabbage-worm is one pound of Paris green in thirty pounds of flour. There is no danger in using Paris green in this proportion for cabbages, as it is always washed off before the cabbages are used, and the outside leaves are also removed before cooking. There is no really satisfactory remedy for the cabbage-lice. Perhaps the best way is to destroy the infested leaves, and to use new land each year or when infested.

Cranberry Culture.—J. C. A., Rhinebeck, N. Y. Cranberries will grow upon a great variety of soil, providing they have moisture. It is a plant that is especially adapted to a rather mucky or peaty soil, but I have seen them grow upon almost clear sand where the other conditions were right. Since cranberries grow naturally upon some parts of your bog you may be quite sure it is well adapted to them. Many bogs which on first examination appear to be well adapted to cranberries are apt to lead to disappointment, owing to the fact that the water is too cold, or some other cause. Cranberries generally do best where the soil water is not very cold. It is a native of your section of the country, and in fact of nearly all the Northern states, and it undoubtedly comes naturally in your land. It is not customary to set out cranberry-plants, but only cuttings are used, as the plants grow very readily from them. I do not know what the charge would be for them, but they are very cheap; they are generally sold at so much a barrel. On receipt of them the barrels can be thrown into any running water and they may stay there for half the summer without injury or further attention. However, they will not keep in this way if the water is stagnant. It usually requires about three years to get a bed into bearing condition. It is not necessary to have the land under cultivation before planting, nor is it customary to do it. Very frequently the trees and bushes are cut off, the surface of the land covered with a few inches of sand, and the plants set at once in it. The cranberry is grown for profit in many of the Northern states. Those that are the most noted for its production are New Jersey, eastern Massachusetts, and Wisconsin. Under favorable conditions a yield of thirty barrels an acre would be considered no more than a fair yield, and it may frequently run up to very much more than that. Before you spend much money on this subject I would suggest that you get a book on cranberry-growing and thoroughly post yourself in regard to it, as there is much to learn. For further information I would suggest that you get the reports from the Wisconsin Cranberries Association, by addressing the secretary, at Cranmoor, Wood County, Wisconsin.

THE POULTRY-YARD

CONDUCTED BY
P. H. JACOBS : HAMMONTON, N.J.

GAPE REMEDIES

THERE are a great many remedies suggested for gapes; but few of them are of value, however, among them being the insertion of a small feather moistened with turpentine into the windpipe and twisting the feather sharply previous to withdrawing it. Carbolic fumes, mixing garlic and asafetida in the birds' food, and a little salicylic acid in the drinking-water, are suggested. One recommendation is that of placing the chicks in a box and dusting them well with fine lime, which gets into the throats and makes the birds cough, thus bringing out the worms which occasion the gapes. This treatment must not be continued long enough to suffocate them. It is claimed as a simple method of curing the gapes in chicks, and one that is successful in the hands of some persons, that the windpipe should be pinched with the hand. Hold the head of the bird up and the neck straight, and with the thumb and finger of the right hand pinch the windpipe smartly, slightly rolling it. Begin as low down as possible and follow it upward to the mouth. Be careful to release it frequently, to give the chick a chance to cough up the crushed parasites. There is also another method, which is to mix well with half a pint of corn-meal about one tablespoonful of spirits of turpentine. Then make the meal into dough and feed three times a day. If the chick is unable to eat, force a small portion gently. It is probably the best method of any mentioned. Prevention is better, however, and the safest plan is not to have the difficulty. Gapes are more common on old farms, especially when the soil is heavy, and the fact denotes that there are germs existing perpetually on such places. Clean up the yards thoroughly, and feed the chicks on boards, that they may be kept clean, and never in filthy places or in the dirt, especially when the food is in a soft state.

HIGH FLYERS

No fence will confine the small, active breeds. They are naturally restless under confinement and will take every opportunity to escape. They can fly ten feet or more in the air, can go over any fence, and if they discover that they can do so the fence is useless. A strand of wire along the inside of the fence and extending six inches inward will throw them back into the yard, as a fowl always alights on the top of a fence before going over. The point is to make a fence so that they cannot alight on it. Clipping one of the wings of each hen may be done, as by so doing they will be unable to fly, and will not be injured in any manner, nor will the clipping affect their laying. Keep them busy and they will be better satisfied. Heavy breeds can be kept within bounds with a fence four feet high.

GROWING THE FOOD

It will not pay to grow the ordinary staple crops for poultry, as such foods can be purchased at less cost than they can be grown; but during the year, if there is spare ground, oats may be sown, with a few peas mixed, on which the hens may be turned when the green food is four or five inches high. Such crops as sunflowers, sorghum-seed, Kafir-corn, popcorn, etc., may be grown in small patches, so as to provide food for a variety in winter. It is difficult to procure sunflower-seed on the market, and for that reason a small plot of sunflowers may be made ornamental and useful. Sunflower-seed is a food that supplies a change of diet in winter, and they are equal to any kind of grain that can be used. Variety of food is what the fowls require.

THE POULTRY-HOUSE IN SUMMER

One important matter in summer is that the poultry-house in which fowls roost should be well ventilated. The house should also be frequently whitewashed and the ground kept free from droppings. The perches should never be high—about one or two feet from the ground being sufficient—as in flying either up or down, if put too high, some are sure to injure themselves sooner or later. Use flat, open pans for the water, and not only see that it is fresh at least once a day, but take care that the receptacles are as free from dirt as the water itself.

DUSTING MATERIAL

Fowls dust their bodies with fine, dry dust (the finer the better), and if well supplied so as to be able to dust their bodies they will keep off the lice. The only difficulty is that they do not always have opportunities for dusting. Loose dirt containing sand or gravel is not always what may be desired. Sifted coal-ashes are excellent, but the ashes must be sifted twice, first to remove the coarse materials and next to reduce the ashes to the condition of powder. This material should be placed in a large box about a yard square and a foot deep, filling it six inches deep with ashes. A handful of Persian insect-powder intimately mixed with the ashes will be an advantage. Keep the box under cover, in the sunlight, and renew the material once a week. Once a month anoint the heads of the fowls with a few drops of olive-oil, well rubbed into the feathers, so as to reach the skin, as a remedy against the large head-lice. It is cheaper to provide the dust-box than to attempt to rid the hens of lice in any other manner. The main point is to keep the poultry-house clean, and the fowls will then easily protect themselves.

CULL THE FLOCK

During this month is the time to get rid of the extra fowls that are unprofitable. If you are satisfied that it is too late to allow more hens to sit, get rid of the males and save expenses, as they are not necessary and the hens will lay as many eggs without the presence of the males. Also get rid of the extra fat hens, as they will not pay for the food they consume.

MAKE IT UNPLEASANT for the lice everywhere—in houses, nests, coops and perches. Keep up the fight. The condition of the average poultry establishment is, to say the least, needlessly filthy and vermin-infested.—Farm Journal.

CORRESPONDENCE

LICE ON TURKEYS.—I will write a few lines in regard to lice on little turkeys for the benefit of the readers of the FARM AND FIRESIDE. There are a great many who do not know where to look for lice. Have ready a little pure lard, and raise the small feathers that fall over the quill-feathers on the wing, and you will find nearly every crease filled with small lice. There is a bunch of downy feathers just back of the vent. You will find a nest of the big body-lice there. Apply the lard (only a little) as soon as you raise the feathers, as they scatter quickly. The chicks should be examined every eight or ten days. I hope some of the readers will be successful, as the chicks are hard to raise. W. S. R.

Casey, Ohio.

INQUIRIES ANSWERED

Dysentery in Chicks.—W. A. S., Ashburn, Georgia, writes: "What is the remedy for young chicks that have dysentery? They are two weeks old."

REPLY:—You should have given your mode of management. Probably they lack variety of food, or are fed on too much soft food.

Millet-seed.—C. E. R., Hancock, Maryland, writes: "How much millet-seed should I allow a dozen hens or a brood of chicks?"

REPLY:—Millet-seeds are small, and are not intended so much for food as to induce fowls to work for them. Usually only a tablespoonful scattered in litter or dirt is sufficient. It is usually given between the regular meals.

Crop-bound, etc.—W. D. N., Eustis, Nebraska, writes: "My hens have packed crops, lay soft-shelled eggs, and lay but few. I feed warm mash in the morning and wheat and corn during the day. They have a free range."

REPLY:—The difficulty is probably due to overfeeding, especially on mash and grain. Give no food at all if they have a range, in order to reduce them in flesh.

Feeding Turkeys.—M. W., Plaquemine, Louisiana, writes: "Please inform me how to feed young turkeys. I have tried to raise them for two years, but without success."

REPLY:—Feed four times a day on stale bread and milk curds, adding onion-tops finely chopped. Vary the food by giving them cracked corn and wheat, hard-boiled eggs and millet-seed, allowing the eggs every other day. Never leave any food to ferment. Have water in vessels that will not allow them to get wet, as dampness is fatal to them. The main cause of losses is the large lice on heads, necks and bodies.

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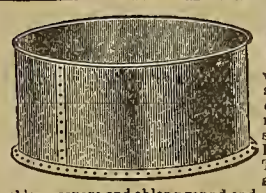
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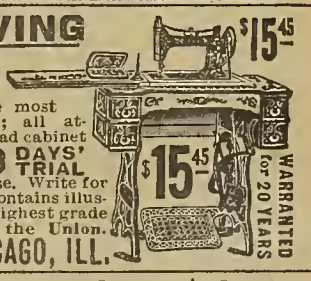
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VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

WARTS

So-called warts are apt to occur on nearly every part of the body of most of our domestic animals, and this appears to be the reason why more inquiries are received relating to warts than to any other disease, so that many of them can only briefly, or not at all, be answered for want of space; and besides this, frequent repetitions are tedious, not so much to the writer as to the reader, because the same, unless allowed to encroach too much upon the space that ought to be given to more important topics, can only give rather meager information or refer to back numbers. I have therefore concluded to give in the following a brief account of the different kinds of common warts, and an outline of the treatment best suited to their peculiarities, size and seat. In the first place, common warts, or horny papillomata (I exclude all so-called malignant warts, hotryomy-comata and so-called cancerous warts), not only differ very much in size, from that of a pin-head to that of a fist, but also in shape and form. In regard to the latter two distinct types can be plainly distinguished; namely, warts with a broad base and usually more or less flat surface, sessile warts, and warts with a small or narrow base and a plainly developed neck. Particularly these latter, especially if proceeding from the comparatively thick and heavy skin of cattle, grow in some cases to an enormous size. Warts occur most frequently on young animals, and if the owner of the latter has some patience, and the warts are not situated where they can do much damage, a treatment is seldom required, because as a rule they will sooner or later disappear without any treatment. In such cases in which the owner of the animal is anxious to have the warts removed as soon as possible, or in cases in which the warts have made their appearance in a place where they are apt to cause real damage, the treatment must be adapted to the size, the shape, or form, and the seat of the wart. Large and sessile warts on rather thick or heavy skin are best destroyed and removed with nitric acid, to be applied in the following way: First tie a small (so-called) surgeon's sponge to the end of a stick of convenient length and about one half inch in diameter. This is conveniently done by cutting a notch around the stick, close to the end, by cutting with a knife a hole into the sponge up to its center, by shoving the notched end of the stick into the hole, and by tying with twine the sponge to the stick over the notch. This done, pour some fuming nitric acid into a glass or porcelain vessel of convenient shape and size, dip the sponge into the acid, wait a moment until no more acid runs off, and then touch the whole surface, but nothing else, in such a way as to bring the acid in thorough contact with the wart. Repeat this once every few minutes until the wart has been reduced to pretty near half its former size. This, as a rule, is sufficient; if, however, it should appear in a few days that it is not, it is easy to make a few more applications, and far to be preferred to overdoing the thing the first time. Warts with a plainly developed neck (pedunculated warts) are best removed by ligation. If they are large the best material to do it with is a good, strong "waxed end," made expressly for that purpose by a shoemaker. It should be two yards long, and a stick should be tied to each end so as to give a good hold. In the middle a so-called castration-noose should be made and be slipped over the wart as close to the skin as possible. If hairs are in the way they should be removed. If the noose is in position, it should be gently drawn tight enough to prevent slipping. This done, the operator takes hold of a stick with each hand and pulls with all his might. If the pulling is done with a jerk the wart as a rule will be pulled out and drop to the ground. If the small wound then bleeds, a little finely powdered sulphate of copper may be applied to it and the bleeding will at once be stopped. If the pulling is not done with a jerk, but the noose is drawn tight enough, the latter may be left in its place after it has been secured in its place by an additional knot, and the wart will drop off in a few days. If the wart is exceedingly large, an elastic ligature may be substituted for the "waxed end," but this is best applied by a veterinarian. As a ligature for small, pedunculated warts an end of stanch surgeon's silk is the most suitable material. This is especially the case if pedunculated warts on the teats of cows are to be removed—but about them further below. Small, sessile warts on thin or delicate skin—for instance, on an eyelid—are best removed by means of a concentrated solution of corrosive sublimate in strong alcohol, to be applied with a camel's-hair pencil. That in such a case the application must be a very careful one, that the pencil, or small brush, must not be too full or be dripping, and that the solution of the corrosive sublimate must not come in contact with anything whatsoever but the surface of the wart, should not need any mention. The applications in such a case must be repeated about once every minute until the whole surface of the wart is coated with a thin and uniform white layer of corrosive sublimate, which, as a rule, is sufficient. If it is, the wart in a few days will begin to shrink and to disappear. If this should not be the case, a few more applications may have to be made. Warts on a cow's teats can be removed only while the cow is dry, because any attempt to do it while the cow is in milk will result in more trouble than has been bargained for. If the warts on the teats are rather small and sessile, the same are probably best removed by repeatedly touching them with a stick of lunar caustic (nitrate of silver) after the wart first has been slightly moistened. If they have a neck, ligation, as stated and described above, constitutes the best method; but a "waxed end" will hardly ever be needed, and a strong silk thread will suffice. In some cases even a small but new rubber band forced around the neck of the wart as many times as possible will answer. I advise those subscribers of the FARM AND FIRESIDE who are interested in warts to preserve this article for at least a year.

Probably Choked.—S. S. P., Latham, Kan. Your hogs, it seems, choked to death by getting food into the trachea, or windpipe, when too hastily eating. If you had cut open the trachea and the lungs instead of the stomach and intestines you probably would have found the cause of death.

Colt Showed no Inclination to Suck.—E. J. D., Cambridge City, Ind. Cases like yours, in which a new-born colt does not show any inclination to suck, are by no means rare. The only thing that is left to do in such a case, provided the colt is not sick, but is sufficiently strong and well developed, is to teach the colt in a gentle and patient way. A method usually successful is the following: First, by a little coaxing, bring the head of the colt as near as possible, without using force and without making the young animal still more perverse, to the udder of the mare; then offer an index finger, first moistened with a little milk, to the colt to suck. When this offer is accepted, as it soon will be, gradually and patiently draw the mouth of the colt nearer and nearer to the udder of the mare, and then, when near enough and the mouth of the colt is close enough to a teat, manage it to gradually substitute a teat for the finger; if this is done in a gentle and patient way the colt will continue to suck and all difficulties will have been overcome. But the operation will hardly ever succeed if mare and colt are surrounded by a crowd of inquisitive people. Two quiet persons are all that is necessary.

Incontinence of Urine.—J. E. P., Eagalite, Col. Incontinence of urine (inability to hold the urine or a continuous and involuntary discharge of the same) may be produced by various causes—for instance, a paralysis of the sphincter of the bladder, in consequence of serious affections of the spinal cord; fractures of dorsal or lumbal vertebrae; severe internal diseases of infectious character, such as puerperal paralysis, hemoglobinuria, etc. It may, however, also be produced by a morbid relaxation or degeneration of the sphincter, caused by inflammatory processes, the presence of stones, concrements, or so-called gravel, and even morbid growths, especially so-called polyps, in the bladder, which either prevent the bladder from contracting or directly affect the sphincter and thus interfere with the performance of its physiological functions. The latter, very likely, is the case in your animal. The only remedy possible consists in removing the cause, and where this cannot be done any treatment will be in vain. Hence, before anything can be done the cause must be ascertained. Since your animal is a mare, and the sphincter of the bladder and the bladder itself much more accessible to an examination than in a male animal, this is comparatively easy, but will require a veterinarian who will also be able to decide what can and what cannot be done after he has made the examination.

Lung Trouble.—H. A. S., Barrington, N. H. According to your description your cow appears to be suffering from some lung trouble; or, to include all possibilities, from an affection of the respiratory organs, perhaps, combined with more or less indigestion produced by gorging herself with corn. I hardly think that the removal of the blanket when the weather became warmer had much, if anything, to do with the bringing on of the ailment, and for several reasons, among which I will mention the age of the cow (just four years); having just had her second calf; having not shown symptoms of disease while carrying the calf; the change of her coat of hair from glossy to rough; the loss of flesh and spirits, notwithstanding that she gives nearly as much milk as before, and the fair appetite in spite of the attack of indigestion. I cannot help being of the opinion that on close and thorough examination the disease will be found to be of a chronic nature, and the causes of the same to be entirely different from "taking cold" in consequence of removing the blanket. I do not say that your cow is tuberculous, for the symptoms related are not sufficient to warrant that diagnosis; but I do advise you to have your cow subjected to the tuberculin test. If you do not know where to get reliable tuberculin and how to use it, apply to your state agricultural experiment station, which, I have no doubt, will assist you in every possible way. When this reaches you the indigestion of your cow, if it ever amounted to much, will have disappeared.

Sequence of Some Worm Disease.—G. T. L., Cookport, Pa. The dropsical effusions beneath the skin, in the chest and probably also in the abdominal cavity, in combination with the diarrhea, or dysentery, are the sequence and the symptoms of the fatal, or dissolution, stage of some worm disease. Whether the disease was caused by lung-worms (Strongylus filaria) in the ramifications of the bronchial tubes, or by liver-flukes (Distomum hepaticum or Distomum lanceolatum) in the bile-ducts of the liver does not proceed from your description. A careful post-mortem examination of the ramifications of the bronchial tubes of the lungs, by clipping them open with a sharp and pointed pair of scissors, and of the bile-ducts of the liver of the next animal that dies, will decide that question. As the worms in either case are inaccessible to medication there is no cure. In either case the worm-brood was picked up last summer either in low and swampy places or from water in stagnant pools or ditches, etc. Only such young animals (yearlings) as are but slightly affected, and also most of the older animals, will pull through. The prevention consists in keeping the sheep, but particularly the lambs, away from all low, wet and swampy grounds, and from any access to stagnant water. Wherever these worm diseases are prevailing the only water that is safe is what is freshly drawn from a deep well or furnished by a good spring, providing the water is not allowed to accumulate in a pool, and thus becoming stagnant long enough to become infected with the worm-brood. Lung-worms are viviparous, while liver-flukes pass through intermediate stages.

Malignant Erysipelas (?).—W. W. C., South Acwarth, N. H. Your description, so far as it goes, would apply to a case of malignant erysipelas of hogs; but as that disease, so far as I have been able to learn, has not yet invaded our country, it is more probable, provided your pigs were white—you do not say anything about their natural color—that the same died of swine-plague, a disease in which, if attacking white pigs, also quite often a morbid redness of the skin, especially of the more tender portions of the same, but particularly on the lower surface of the body, will make its appearance a short time before death. Both swine-plague and malignant erysipelas, being infectious diseases caused by pathogenic bacteria, can be much easier prevented than cured. If the animal organism is strong enough to withstand and to overcome the ravages produced by the bacteria, the animal will live and to a certain extent recover; but if not, or if the pathogenic action of the bacteria has sufficiently damaged vital organs to disable them from performing their physiological functions, the animal will die. A medicinal treatment, for obvious reasons, can have but little, if any, effect upon the pathogenic action of the bacteria, especially if irreparable morbid changes have already been produced, and as a rule, therefore, will be of no avail; besides this, either disease is seldom recognized by the owner of the infected animals until such irreparable morbid changes have been produced, for only then the symptoms become plain enough to be observed by anybody. Both diseases can be prevented in a twofold way; namely, by warding off or by destroying the infectious principle (the pathogenic bacteria) wherever the same may exist—something always difficult and often impossible—or by producing immunity by means of a protective inoculation of the animals to be protected.

Probably a Diverticle or Possibly an Ectasia of the Esophagus.—J. F., Broadalbin, N. Y. Your description of your case indicates the presence of a diverticle (hernia), or possibly of an ectasia of the esophagus of your horse. The difference is this: The esophagus (gullet) is composed of two membranes—an external, or muscular, coat, and an internal, or mucous, membrane. Of these two the inner, or mucous, membrane is by far the widest or most yielding, while the muscular membrane is less yielding, much narrower and constantly kept contracted by the muscular fibers it contains. If a horse or any other animal is a greedy eater and attempts to swallow a morsel that is much too large, and perhaps composed of rough and unyielding food, or insufficiently masticated and insalivated, it may happen that the less-yielding muscular coat ruptures, so that the more-yielding and wider mucous membrane bulges out through the (often longitudinal) rent in muscular coat. Then gradually the bulging-out portion of the mucous membrane will become larger and larger, and finally form a sac of considerable capacity. Such a condition is known under the name of a diverticle, esophageal hernia, or esophagocele. If such a sac, which may exist either in the neck portion or in the chest portion of the esophagus, becomes filled with food to the utmost, just such a great difficulty of breathing as you describe will be produced, and will disappear as soon as the sac becomes more or less emptied, either by the food finding its way into the stomach or by being thrown up again. An ectasia differs from a diverticle in so far as in the former no rupture exists, and that both membranes, the muscularis as well as the mucosa, have become abnormally widened. Such an ectasia as a rule is produced slowly and gradually, but can also grow to a considerable size, and form a sac large enough to hold over three quarts of fluid. Diverticles and ectasiae occur most frequently in the chest portion of the esophagus, especially close to the insertion of the latter into the stomach, and then, of course, are inaccessible to any surgical operation. But if limited to the neck portion, as is probably the case in your horse, because you mention that during each attack of difficult breathing a swelling along the left side of the neck can be plainly seen (according to Ruheli's statements concerning twenty-six cases, the diverticle was in eight cases in the neck portion and in eighteen cases in the chest portion), a surgical operation is not only possible, but also indicated, because in a horse like yours any dyspnoeic attack may be the last or fatal one. The operation itself, if performed under strictly aseptic precautions, is not dangerous, but at the same time is not very simple or easy, and should be intrusted only to a very competent veterinarian. A description, therefore, will not be necessary.

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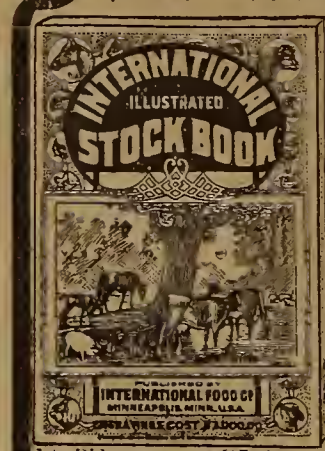

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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

A DAY IN JUNE

And what is so rare as a day in June?
Then, if ever, come perfect days,
Then heaven tries earth if it be in tune,
And over it softly her warm ear lays;
Whether we look, or whether we listen,
We hear life murmur, or see it glisten.
Every clod feels a stir of might,
An instinct within that reaches and towers,
And, groping blindly above it for light,
Climbs to a soul in grass and flowers;
The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip startles in meadows green,
The buttercup catches the sun in its chalice,
And there's never a leaf nor a blade too mean
To be some happy creature's palace.
The little bird sits at his door in the sun,
Atilt like the blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,
In the nice ear of nature, which song is the best?
—James Russell Lowell, in the Vision of Sir Launfal.

CURRENT COMMENT

Organizing a Grange If a community desires a grange organized write to the state master, giving the conditions in your locality, and ask him to send you a good picnic speaker. If the situation is promising, and the speaker has not time to organize a grange, a deputy will be sent who will make a canvass, if necessary, and organize a grange. Many strong granges have been organized in this way. Let several of the leading farmers in a community who are anxious to ally themselves with the organized farmers of the land unite in securing a good location, good speakers and a good program. If local speakers are called in, invite those who are vitally interested in agriculture. There is nothing so depressing as to have some long-winded, would-be orator strut and stamp and tell of the time long ago when he was a farmer boy, and condescendingly pat you on the back and impress upon you the fact that you are the "backbone and sinew of the nation." Such talk is a back number in a progressive community. Rather select a speaker who owns land, who sees in it infinite possibilities for the development of the best manhood and womanhood, as well as lucrative employment. Let him preach the doctrine of happier, more beautiful farm homes, richer lives and better methods of agriculture. Such are the men who will help us in our struggle onward and upward, who will aid our organization, who will give to us the idea of the dignity of farm-life, and who will send us to our homes thoughtful and earnestly determined to live better, purer, nobler lives. Every state has such men. We will gladly give the address of any state master if requested to do so. The list is too long to publish here.

Will It Pay? "Will it pay?" That is the first question a shrewd business man asks concerning any proposition. "Will it pay?" is the question the intelligent farmer puts concerning the grange. Let me ask you a few questions. Will it pay to insure in a safe, reliable company that will cost you one half to two thirds less than the old-line companies? Will it pay to avail yourself of the trade arrangements, and thus save materially on everything the farmer has to buy, from machinery and binder-twine to the most insignificant household necessity? Will it pay to be in close touch with the organized farmers of your state and of the nation when any public question comes up in which your business as a farmer is to be affected? Will it pay you then to be ready to strike at the proper moment a quick, imperative, decisive blow for or against the proposed legislation? Which pays best, to be able to use your influence for or against a proposed bill, both individually and as a member of a strong organization, or to act as an individual only? Which have accomplished more for the farmers, the small band, relatively speaking, of organized farmers, or the great mass of unorganized farmers? Just what have you done to help along the cause of the farmers? What have you accomplished to secure their just rights? Has your protest gone out against injustice? Has your voice been lifted up effectively for righteousness? You have thought about these things. That is good. But why not make your thought effective? Thought alone is of little good. If it is backed up by action it moves the world.

Will it pay you to meet once or twice a month with your neighbors for social intercourse and helpful study? Will it pay you to have a club-house where your family may meet the families of the neighborhood and exchange greetings and renew their faith and courage and sympathy for humanity? Will it pay to give to the young people the social advantages they so crave and are deprived of, which drives them to the city and town and you to hired labor, when you can get it indoors and out?

I think you will agree with me that it will not pay you to keep out of the grange. That you cannot afford to miss the advantages and opportunities it offers you to help and be helped. I know that each of you are anxious to make your life as helpful as possible. You have not told me, but I know that the key-note of every noble life is helpfulness. And I know that in each of you there is a spark of nobility. I know that if you realized the vast possibilities of the grange as a factor in benefiting yourself, your community and your country you would gladly enter the ranks of the grange.

The Grange Library How are your preparations for that grange library you were going to start progressing? Have you any definite plans for raising money? Have you your committees appointed? If you sincerely desire a library you are going to get it. If not, innumerable obstacles will arise in your pathway.

There are so many ways of raising money, yet most of us would rather pay a stated sum than incur the trouble of getting up elaborate entertainments. However, the young people enjoy the fun and frolic. Ice-cream suppers, strawberry festivals and lawn parties of various kinds may be productive of pleasure and profit. A certain per cent of the grange funds might properly be set aside for library purposes. Picnic-stands, flower shows, fairs, will yield their revenue. Get up a reunion of the people who have left their native place. Invite them to be present if possible. If not, ask them to write you a bright, crisp letter to be read at the reunion. Ask them to send a small remittance or a book. If money is sent, ask them to suggest the book that they would like purchased, and inscribe their names in it as the donor. In most instances they will be glad to do so. The evening may be made most happy and profitable.

Judge Huggins' recent excellent article brought numerous letters to him. We are in receipt of many asking where to buy books and what books to buy. As a rule it is best to buy standard works on which the copyright has expired. These can be gotten at wholesale catalogue houses very cheap. Where there is a limited amount of money to spend it is not wise to buy a lot of books that are enjoying a popular run. They may or may not be worthy of preservation. Let time and the critics settle that matter. Popular approval or disapproval is a no more safe criterion of the merits of a book than it is of the merits of a man. There are books that have inspired and comforted millions of human hearts, and will many millions more. The writers had something to say, and said it richly, graciously, sympathetically. There is a vast difference between having something to say and having to say something. The books that live are written by men of the first class. They can be gotten for four nickels or dimes, according to print and binding. Make out a list of books that you want to buy. If you think of buying the fifteen-cent editions, write the seller asking if the books are unabridged and the type large and clear. Ask the same of the twenty-cent and twenty-five-cent editions. Then buy only those in the fifteen-cent editions that are complete. Nearly all of the twenty-five-cent editions are complete and have good type and binding. The forty-cent editions are, for the most part, very good. Better use the money that you were going to put in a hat and put it into a book that will beautify that under the hat.

Helpful Words Our readers who used to read the "W. M. K." articles in the FARM AND FIRESIDE will again be glad to hear from Major King. Major King is a stanch and influential patron, and one whose wide experience and knowledge have been of marked help not only to the grange, but to the farmers as a writer and as an efficient and intelligent worker in the Department of Agriculture.

The grange is an example of what can be effected by working together with faith and hope and continually striving to benefit each member of the order. By such methods an enthusiasm in the routine work on the farm or in the farm home is fostered so that the members enjoy and rejoice in their work.

The grange has proved itself a conservative and useful force in ennobling the agricultural classes in America. Within the grange hall and at its public meetings of a state or national character it has shown its real power as a training-school for the best form of citizenship. In its meetings of a national character discipline and intelligence of a high order have been manifested in dealing with vital questions of national importance which relate directly to the well-being and well-doing of the agricultural classes.

As a member of the grange I realize that "in union there is strength." I feel that this organization recognizes this fundamental principle as the one thing above all others most to be desired. We organize because of the mutual advantage which it affords. It seems to be a human instinct to do so. For the purpose of effecting needed reforms the smaller must necessarily organize into much larger associations.

Grange Extension Our readers remember that in our May 1st issue we published Dr. Trimble's report of granges organized and reorganized during the first quarter of the twentieth century. There were seventy-eight granges organized and thirty-one reorganized, a total of one hundred and nine. Leaders in grange-work were startled. They had labored hard and earnestly for the cause of organization. Where was the trouble? The masters of the various state granges sent out letters of inquiry to the deputies. Many had worked diligently. Then came letters of encouragement and helpful advice and sympathy. And the deputies girded up their armor and took new courage, and have gone forth to cultivate the seed they have sown. Perhaps they may be so happy as to garner the harvest. Certain it is that never before since the early days of our order has such earnest, systematic and persistent work been done. Those who have long loved and labored for the grange have taken new courage as they see the glimmering dawn of the day they have so long worked and waited for. And those new members who have come to us, who love the grange and see in it infinite possibilities for the farmer, they, too, are working and hoping and praying. The present indications are that the number of granges for the second quarter will exceed those of the first. This will be a splendid showing for the busiest months of the year.

Inquiries are coming to us as to the way of organizing a grange. We repeat suggestions given oftentimes before. There must be at least thirteen charter members, four of whom shall be women. The initiation fee for men cannot be less than $1.00, and for women fifty cents. The monthly dues are ten cents. If you feel confident that you can organize a good grange, write to the worthy master of the state grange and he will send an organizer. If you live in an intelligent, progressive community you ought to find no trouble in organizing a grange. Intelligent farmers are glad to ally themselves with any organization that will aid their class. The grange has a splendid record. Its history is one of which to be proud. Inform yourself of its work. Become conversant with the organized effort of other classes. See what they have accomplished by combining their forces. First convince yourself, then set about to convince others. The secret of success in this, as in all other matters, is work. Not spasmodic, ill-applied energy, but continuous, systematic and intelligent effort.

Farmers as Legislators In nominating a farmer for the legislature select one of the shrewdest, most far-seeing, level-headed men that the farm can furnish, a man who cannot easily be deceived or led astray by lobbyists or legislators; a man who will not feel flattered by mileage-books so that he can go home and see his farm every Saturday night without cost, telegraph or telephone franks so that he can communicate with his family when he pleases, or express franks by which he can receive or send things to the farm without cost, and a man who will not be flattered by attentions paid to his family when they come to see him. Select a thorough-going, practical, shrewd man, with great common sense and sound judgment. By doing so farmers will have the voice in legislation that their own financial interests require; otherwise not, no matter how many farmers are sent to the legislature.—Wallace's Farmer.

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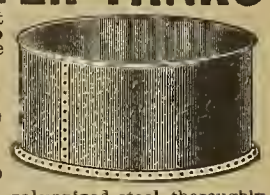

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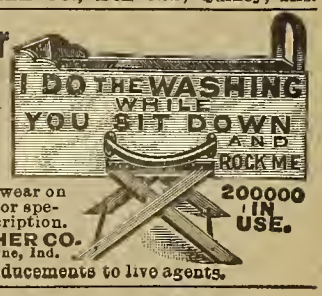

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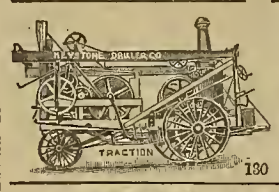

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Simplified Housekeeping

BY LOUISE

One morning last summer at Chautauqua I was hurrying to attend a lecture by Maria Parloa on "Simplified Housekeeping" when my mother said to me, "You have your housekeeping down to such a fine point now I am afraid if you do any more simplifying there will be nothing left of it."

Lack of strength and a desire for a home, not merely a well-kept house where we eat and sleep and have our being, have necessitated a simple system. A woman of brawn whose delight is to see how much work she can "turn off" in a day is not in need of these well-meant suggestions.

My husband, one of the ideal American husbands, prefers a wife who is a companion and not a household drudge, and it is due to his studied thoughtfulness that many of the happiest changes have been brought about.

Ten years ago as a bride I came to the farm home. The house was big and roomy and beautiful for situation; hammocks swung under magnificent old trees, and with plenty of good reading and plenty of good eating I soon found it the ideal spot—for the summer guest.

Now, the mistress of this home had a call for many and varied qualifications. Oh, the entertaining and the work! The small, hot kitchen, the inferior help, the long table of hungry men and idle townfolk, the chickens to run after, the milk and fruit to care for, the flies to fight, the scrubbing and sweeping and washing and ironing—life for her was no summer dream. She and the magazines and hammock and shade-trees were almost strangers. Here was a big place for a limited creature to fill. As it was a physical impossibility to make her fit the position, the only other thing to do was to make the position fit her. Such changes could not be made in one year nor in two, but by patient endeavoring we are to-day nearer of one size, the place and I, and both have been benefited thereby.

The first step in the right direction was to remove a picturesque but back-breaking arrangement for drawing water, and to substitute a sensible, easy-running pump. Result: less labor, less slop.

Opposite the south kitchen window a north window was put in, giving a free circulation of air, and my dreams of Tophet were over.

An open cupboard and a much-scoured table were removed, and in their room was built a long, wide table having two shelves and three doors. In this are stored the pans, kettles, graters, cups and endless array of unsightly weapons of culinary warfare. It is only two steps from one end of this labor-saving table to the stove, while the other end is near the door and window. Here is the base of my operations, and for it my heart goes out in a song of thankfulness many times a day. It is like an omnibus, too; always room for more, both on top and inside. The sides and shelves are painted the color of the kitchen wall, and on the top oil-cloth is tacked smoothly and tightly.

The kitchen floor is covered with linoleum, and in a few moments now soft cloths and warm water will give more satisfactory results than the scrubbing-brush and hard labor did in the dark days of bare floors and tables. The children track in mud, and milk or grease may be spilled without ruin to one's disposition. The heavy iron kettles have been replaced by light graniteware as much as is practicable.

Spring brought more of care than of joy, for did not all the carpets have to come up, in order that the walls and ceilings, which the uninitiated were wont to call beautiful, might be washed and recalcimined? Weeks of confusion and toil made us unconscious of spring's loveliness. Now wall-paper, mattings, and wire screens at all the doors and windows have so simplified the house-cleaning that I have the time and spirit to recognize a kind Creator in the sunshine. The spare rooms and parlor are given plenty of light to prevent moths, but are kept closed in dusty weather, and now seasons come and seasons go and they are left undisturbed. I do not tear up a room for the fun of it; tradition holds no iron rule over me, and I wait until there is dust to find before I seek it. I grieve for the misguided housekeeper who took up a carpet and proudly announced that she did not find a "teaspoonful of dust."

The chickens no longer hold undisputed dominion over the premises. They are relegated to an inclosed back lot, and instead of hen-wallows beds of roses and pansies bloom—the most beautiful and prolific of flowers, requiring the least care. I really am richer in pocket, as I get more eggs, and the crops are spared their devastations. This woven-wire fence is all the fence, except the one around the pasture, that has to be kept in repair.

The master-stroke was given when by reason of a small compensation the hired men were made alive to the fact that they could put up with their own wives' cooking. Those too far from home either bring their dinners or have it sent to them. These women now have less time for visiting, and I have more.

We ceased to run a free boarding-house. Agents and all other wayfaring men have learned that the village and two good boarding-houses are only half a mile further on.

All this removed so much work from the house that the kitchen-girl soon followed. Now we are a free family, with liberty of speech and a peaceful fireside.

A gasolene range prevents a summer collapse. I am learning that pies and rich cakes are non-essentials to a daily diet.

The washing and ironing are done out of the house, and some sewing is saved by purchasing ready-made garments at a cost of little more than the material contained in them. Each member shoulders his share of the load, and is the happier for it. "I always like my supper more when I have brought in the coal and water and taken out the slops and ashes," is one boy's way of expressing it.

I prefer to take the time often spent in making useless frills on the children's clothes and employ it in reading good books to them. The clothes are soon gone, but good impressions are eternal.

An overworked woman may be a good housekeeper, but she can hardly be a good home-keeper. Overwrought nerves do not promote sweetness of temper.

At a dinner-party a few weeks ago the ladies embarrassed me by demanding to know how I had made my housekeeping so light. One lady said, "Your house always looks nice, yet you never seem busy. Tell us your secret." And this is all there is to tell: I do what is necessary, and study to do it the easy way.

My change in household methods has been in line with the demands of economy. Savings in wages and waste of the girl have bought the labor-saving improvements and paid laundry bills and occasional help. Savings in doctors' bills buy the magazines and books we now find time to read.

PEANUT-GROWING

Why not give the boys and girls a chance to grow some peanuts for themselves this summer? This is good instruction, is healthful and keeps them out of mischief; besides, they can save their money to buy something else with next winter.

Peanuts are not hard to grow, and every family on a farm should grow enough for their own use who possibly can. Peanuts require a rich, loose, sandy soil to do best in, but will grow in any kind, provided not too hard. They should be planted in rows three feet apart, and one and one half feet apart in the row. Always shell them before planting, as it takes a long time to rot the shell so they can come through. Drop two in a place. The rows can be made by drawing a furrow with a plow, and cover with hoe, plow or cultivator, being careful not to cover too deeply. Keep all weeds out, the soil loose and mellow, and cultivate often. When they bloom, don't waste your time covering them with dirt. That theory exploded long ago as all bosh! In the fall, just before frost, pull up the vines and pick off the peanuts. If the ground was very loose, about every peanut will be pulled up and there would be no need to hoe the ground over for what is left. Some lift the vines from the ground with a pitchfork, which is easily done. Always wash the peanuts off good and then spread out somewhere in the sunshine to dry. The drying process takes about two weeks of good weather. The vines should have all dirt shaken off and then be cured for hay. Cattle are very fond of them in the winter.

Now, there are several varieties, but for the Northern states one should plant the sweet Spanish variety, which is early but small, though just as good and very productive. The larger kinds can be planted safely as far north as central Kansas, as the writer has grown them there with large yields.

Mrs. W. M. Knoer.

CONVENIENCES FOR BABY

It is frequently the case that the rooms that seemed all right before baby came get very crowded with the necessary belongings of the little stranger. The illustration gives a very comfortable combination. It gets out of sight the bath-tub, which is a daily necessity, and also forms a comfortable bed. A child can be taught to lie in a stationary bed as well as to be constantly rocked in a cradle. If necessary this can be only the daytime bed—another being up-stairs for night—and it will be a great rest for the mother not to go up and down stairs. It can be made by any carpenter to fit the bath-tub, and upholstered at slight cost.

B. K.

LETTER-WRITING

Letter-writing is largely a matter of habit, and, like all other habits, grows easier the more it is practised. If we look upon letter-writing as simply "talking with a pen" to our friends it will never be more of a task than talking to them with the lips.

The son or daughter who goes out from the home to school or to make a place among the world's workers or to build a home for themselves needs frequent letters from the dear home friends to cheer and encourage. When a young man or woman has only a room in a boarding-house to call home they often feel lonely and discouraged, and no one who has not had this experience can know the comfort letters from the home bring. The daughter and sister who has gone a bride into a new home, although she is sheltered and surrounded by the new love, and is happy in it, yet prizes the letters from home. She is strengthened in her new life and duties by the loving sympathy of home-loved ones. A letter is not a little thing when it can carry so much of good to absent ones. Write often. Tell them how much you miss them, what you are doing and reading, all the bits of news and the pleasant or funny things that have happened; the hundred little things that would come to your lips if you could see them and which make a letter a part of one's own personality. It is a comfort when one is homesick and may be discouraged to get these letters, showing that there is a place in the heart of the writer which only you can fill. To be kept in close communion with home friends is a safeguard and shield from very many temptations.

If you are away from home, let nothing hinder you from writing often to those left behind. Do not let new cares and interest make you careless. Put into your letters a part of your every-day life. If you have gone to a new home of your own, everything about it will be of interest to those left behind. Tell them all the little particulars of house and furniture, so they can imagine how it all looks. No little detail will seem trivial to them. Remember that your going away has left a sense of loneliness, and the least you can do is to write often bright, cheery, loving letters. I remember of hearing a mother whose only daughter had gone away say, "My days are divided into the ones in which I get a letter from Mary and the ones I don't." It is a sad sight to see the aged parents left alone in the home, from which, one after another, the children have gone out and become so absorbed in a new life that they forget to write often to those whose every thought is a prayer for the success and happiness of their children. If you have been guilty of this neglect resolve now to at least let no week pass without writing a good long letter home. If you could see how the care-worn faces will brighten as your letters are read, re-read and talked over you would feel fully repaid for every minute spent in writing.

Besides the letters to one's own home folks there are letters of friendship into which if you put yourself, your sympathy in another's grief or trouble, and your congratulations for another's joy, you will be doing good. I know one busy little woman who never forgets the birthdays of her friends, but sends them cheery little notes on these occasions which are pleasant to receive, for every one likes to be remembered. Another busy woman frequently receives letters asking for information or advice from people who only know her through what she has written. She never fails to answer these as best she can, hoping that they in turn may be able to extend like help to some other, and very precious to her are the letters of thankfulness she has received from those she has been able to help by a word in some time of need.

Maida McL.

ABOUT SUMMER SHIRT-WAISTS

If one were to judge superficially by the general effect of the summer shirt-waists shown in the shop-windows of the metropolis one would come to the conclusion that the plain and simple shirt-waist had passed from existence, for everywhere one turns there are such elaborate creations as to make one think pathetically of the limitations of the average pocketbook.

It is certainly true that the lover of good needlework who is able to "sit on a cushion and sew a fine seam" can make for herself shirt-waists that will be the envy of the townspeople; but it is also true that the woman with an eye for color and combination effects may produce equally as beautiful results, if not as beautiful or elaborate work.

The very elaborate creations in shirt-waists are composed largely of lace, embroidery, hand-embroidered work, in combination with fine organdies, lawns, pongees, India dimities, linen and other fine washable materials.

The all-over lace waist bids fair to be far more popular than last year, and is made frequently entirely of the all-over lace. One I have in mind was made of the all-over lace and embroidery combined—that is, a strip of delicate lace and a strip of very fine embroidered lawn running lengthwise of the goods. The waist buttoned in the back, aided by an invisible fly. Some waists of this character, however, show dainty pearl buttons at the back closing. The waist was of simple design, having only a few gathers at the neck and waist-line, front and back; having, also, the straight-front effect by being pulled down to almost a point at the lower front. The sleeves were plain dress-sleeves, sung at the shoulder-seam and bell-shaped at the wrist. The collar was of the same material, unlined, but boned into shape with strips of featherboning, and edged with lace to match the lace stripe of the goods.

It may be well to say here that the soft, unlined collars are to be very popular this summer, and they will be gladly welcomed because of their coolness and the dainty effect produced by the fair throat showing through the lace and insertion.

From this waist you will understand what I mean by the woman with an eye for striking effects producing such excellent results. This waist described was very beautiful, and gave the effect of being very elaborate and requiring time and skilled labor for its manufacture, where in reality one could hardly make a simpler or easier waist.

Another beautiful waist was made of all-over embroidery, buttoned at the back, showing fine pearl buttons. This waist was perfectly tight-fitting across the bust—tight-fitting, but not drawing in the least degree—gathered at the waist-line and brought to a point for the straight-front effect. The sleeves were the ordinary dress-sleeve, cut to a downward point over the back of the hand. The collar was of the same material, unlined, and edged with narrow embroidery to match the goods.

These two waists—coming under the head of shirt-waists—require no special labor or skill, and yet give the effect of very elaborate and dressy creations, suitable for any "dress" occasion.

As against the above-mentioned waists was one of cream pongee beautifully embroidered by hand. This waist was fastened invisibly down the front under a box-plait. There were a few gathers at the top and bottom of the waist, front and back. This sounds simple enough, but across the entire front and down the box-plait was an elaborate design in hand-embroidery. The sleeves were also elaborate with embroidery, as was the collar. The effect was beautiful, but the work it entailed was appalling, or at least appalling to the average woman whose time and accomplishments are limited.

Other elaborate waists were made of fine lawns, organdies, India dimities, and combined with beautiful insertions running up and down and across the waists in straight lines and Greek effects, with the goods cut out from underneath. A delicate lavender was made with strip after strip of insertion down and across the front and back, a perfect interlacing of sheer lawn and delicate lace. The sleeves at the top were also interlaced, requiring great care and patience, if not actual skill. Another delicate pink waist was trimmed with wide cream insertion laid on across the front and top of the sleeves in Greek block design, with the material cut out. Around the neck a piece of the lace was laid, covering the lower half of the collar and the upper two inches of the waist, with goods cut out, thus showing the prettiest part of the throat through the lace.

Of course, waists like the above can be made in moderation and with decreased expense. For instance, a waist can be made with a front and collar and sleeve-trimmings of all-over embroidery or embroidery and lace, thus cutting down the expense more than one half and yet resulting in a very beautiful waist.

The hand-embroidered pongee can be imitated and a waist made of the lawn or India dimity, or even pongee, which has a wide machine-embroidered strip along one side.

Strips of embroidered insertion make excellent fronts for fancy waists. Usually on either side of the insertion are wide strips of fine lawn. This lawn should be matched, and the body part of the waist and sleeves made of the plain lawn, while the fronts and trimmings can be made of the strips of embroidery insertion neatly stitched or machine-hemstitched together.

In this way apparently elaborate and expensive waists can be made up with little labor and comparatively small expense.

Almost everything in the line of dressy summer shirt-waists is extremely sheer, so sheer that in some cases a separate under-waist is necessary, or at any rate the corset-cover must be exceedingly dainty and well adjusted.

India dimities, the figured, dotted and silk-striped organdies, and dotted swisses will be particularly fashionable for dressy waists, while plain, dotted, mercerized (silk-finished) and embroidered chambrays, mercerized batiste and madras will be the favorites in the heavier and more sensible materials. Then there will be used the plain and figured lawns, the dainty white and figured organdies, the French batistes and the hundred and one materials of different names, but practically the same as the above.

Those who are skilled in Honiton or Renaissance work can beautify their fancier waists with collars, insertions, boleros and other trimmings made by their own hands, or can even make entire overwaists which are beautiful and stylish and would be more popular were they not so expensive and so unattainable by many. E. L. H. R.

DOMESTIC ECONOMY

The Ohio Federation of Woman's Clubs have issued a small folder on "Domestic Economy," with a list of very valuable and helpful literature to be used in schools or homes in connection with the subject.

"By political economy, or national economy, is meant all that bears most intimately upon state and nation. Domestic economy, then, should include all that bears upon home-life and human development, and if this is true it is the nucleus of every other economy in the world.

"An improved home-life is perhaps not all that is necessary to humanity, but if mothers and teachers were better informed concerning the actual needs of the human being the result would be a superior race of men. From no source but from the homes can a nation recruit her citizens, and upon the training of her girls depend these homes.

"Statistics show that before the fifth grade half of the pupils first enrolled drop out of school, that but one fourth of all who enter ever reach the ninth grade, and only a meager few have the benefits of a college education.

"These questions then confront the women of Ohio, as well as all other states:

"First—What is the state's duty toward these thousands of children who each year leave school to begin practically unaided the struggle for existence?

"Second—In what way is it possible for us as women to improve the present economic and social condition of our state?

"The curricula of public schools and colleges are already crowded, but it is believed by such men as Professor Dewey, of Chicago University, that by correlating theoretical and practical work nothing of value now taught need be omitted. It is as important that a boy know something of personal and home hygiene, domestic and municipal sanitation, and that he be skilled in the use of his hands, as that a girl be instructed in house management and decoration. Physiology is as practical for the husband as for the mother, and but a few years suffice to make the unkept children of our streets the parents of another neglected generation. The mass of these men and women have little respect for the body, see no dignity in hand-labor and are void of ambition. Their haunts are a menace to the health of a city, and from their ranks are drawn the inmates for our asylums, reformatories and police-stations.

"This class of people have no time, in the few years allotted to the school-room, for purely theoretical knowledge, nor do any class in our estimation. Hundreds of students are hampered by a one-sided education; there is a knowledge of facts without technical skill to apply it, or deftness of hand without the trained intellect which makes labor powerful. Edison could not have succeeded so well had he been intellectually stunted or practically unskilled. The mind, soul and body working harmoniously result in genius, and our schools shall fail of their full mission so long as they say to the hand, 'I have no need of thee except for drawing and writing;' the home problems, too, must remain unanswered until women put their prejudices aside and resolve to train themselves and their daughters, their sons and their servants to a truer appreciation of the dignity of labor. We are yet to learn that there is power in correct living, and that nothing which pertains to life is trivial or unimportant."

THE TOCSIN OF THE SOUL

Byron calls the dinner-bell "the tocsin of the soul." If one eats hastily, and with each mouthful revolves the cares and anxieties of the day, the digestive organs will be crippled. If we value our health we must masticate our food thoroughly and be cheerful at meal-time, avoiding all disagreeable subjects while eating.

The manner in which one eats may tip the balance in favor of digestion or indigestion. Food washed down with water, coffee, tea or even cereal postum will not assimilate. We should not drink until the mouth is empty. Water is of great importance, but it must not be made to take the place of saliva, for it does not contain the digestive fluids. If we drink a glassful of water half an hour before meals our digestion will be improved.

It is said that Carlyle used to swallow his food hastily and in great chunks; if this be so, we have the secret of his dyspepsia and its attendant ills. Gladstone went to the other extreme. He is said to have taken thirty-two bites to every mouthful. His wonderful vitality, due to his perfect digestive powers, is an example of the benefit of thoroughly masticating one's food.

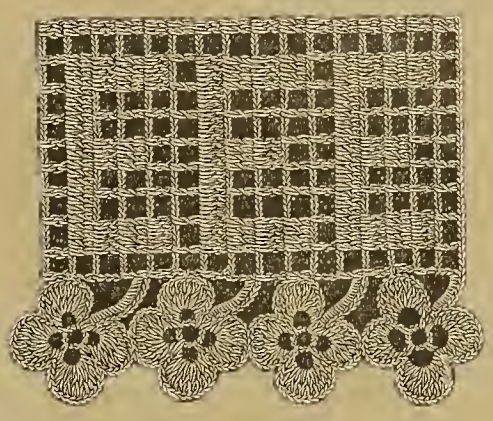
Overeating is a frequent cause of indigestion. When too much food is taken fermentation takes place and gas is formed. As the stomach lies under the heart, with only the diaphragm between, heartburn and palpitation are reflex symptoms from indigestion.

If three tablespoonfuls of boiling water be poured over a teaspoonful of flaxseed, and this "tea" drank before breakfast, indigestion will leave.

ELLA BARTLETT SIMMONS.

"E" LACE

Make this of No. 40 thread, beginning with a chain of 32 stitches, putting a chain of two between each one of the long-crocheted stitches in the first row. The illustration is so perfect that directions are unnecessary. The stem of the clover-leaf is



made at the end of the third row of 20 chain; turn, and fasten a loop into the twelfth stitch. Into this chain four and fasten four times; return on this, putting twelve into each loop. Then crochet short crochet up the chain to fourth row.

REGARDING THE CARE OF THE TEETH

In the distance she was an attractive girl—graceful, sweet-faced, with gentle manners, and a voice so pure and clear that listening to her as she sang, "Consider the Lilies," she appeared to me as lovely as an angel. But a little later, when my seat happened to be next hers, the spell was broken, for by accident I happened to be looking at her as she opened her mouth, and such teeth I never beheld. In fact, I did not behold any teeth at all, for they were so covered with tartar and bacteria of all kinds as to be completely hidden from sight. I never sought occasion to sit near her again.

It was this poor girl's misfortune, and not her fault, to have had parents who never taught her the use of a tooth-brush, and never impressed upon her the necessity of cleaning her teeth as regularly as she washed her face. The wide-spread destruction and loss of children's teeth to-day is said to be largely due to the neglect and ignorance of parents, who might save endless suffering and expense by carefully washing their children's teeth and by impressing upon them as soon as they are old enough the importance of using a tooth-brush.

Many a beautiful face, we are told, has been spoiled by the mischievous habit of thumb-sucking, which is injurious not only to the first and second set of teeth, but to the structure of the entire face. Throat and bronchial trouble have often been traced to this habit. The green stain seen on children's teeth should always be removed, as it is a collection of bacteria, and will be sure to result in the softening and loss of the enamel.

Many are careful to clean their teeth the first thing in the morning, but really the time of all others when it is most important to care for the teeth is just before retiring, as the greatest decay takes place between the last meal at night and the first one in the morning. The debris remaining on the teeth and under the gums begins to ferment in that soft, warm place, the mouth; acid is formed, and disintegration of the enamel takes place. The morning hour certainly should not be overlooked, and the few moments necessary to clean the teeth after each meal is well spent if one regards health and beauty.

The cheap tooth-brush whose flimsy bristles breaking leaves slivers to lacerate the gums, or whose stiff, harsh bristles irritate the sensitive mouth, should never be used. To be of benefit the bristles should be pliable, elastic and not stiff enough to injure the gums. In using the brush, a simple back-and-forth rubbing will not do. A vertical up-and-down movement is absolutely necessary; and the inner and masticating surfaces should be given more attention than the outer surfaces of the teeth, for it is inside the teeth is found almost entirely the accumulation of tartar.

Tooth-powders are so apt to be sprinkled around untidily that tooth-pastes put up conveniently in tubes are now generally preferred. A most satisfactory paste is the one which is made up of white castile soap, thymol and other antiseptics, and compounded with orris-root, oil of cloves and attar of roses as delicately as a confection. The use of charcoal, cigar-ashes and the like are condemned as having no merit whatever.

When tooth-brush and paste are not within reach, a soft cloth with pure castile soap can work wonders in cleansing the teeth, and the old-fashioned mother who vigorously washed the children's mouths in this manner whenever they used foul language or told a lie did a noble work not only in impressing good clean morals upon her child's mind, but in removing a great number of unwholesome bacteria from his mouth.

After cleansing the teeth at night it is well to use a simple antiseptic wash of listerine or glyco-thermaline, or in cases where the mouth is very acid use milk of magnesia. If preferred, dry magnesia or prepared chalk may be rubbed on with the fingers, leaving a minute particle between the teeth. These remedies will in time overcome the sensitive condition of the necks of the teeth and help to prevent a bad taste so often found in the mouth in the morning. By neglecting such care the gums are in danger of shrinking away, and the teeth as they loosen will fall out. In using any mouth-wash, the liquid should be forced by the muscles of the cheek between each tooth and remain in the mouth from three to five minutes.

One who values fine, white teeth will always take medicines or any acid through a glass tube, and avoid, if possible, very hot and very cold drinks. Cooked foods, confectionery, lack of exercise and neglect in cleansing the teeth and gums all help to decay the teeth.

Over one hundred different kinds of bacteria have been found by scientists living in the fluids and juices of the mouth, and the study of them is interesting as a kind of microscopical botany, for these little organisms are not animals, but plants. The acid secreted by these micro-organisms is the cause of the decay of the teeth. From this we know that if the mouth and teeth were kept perfectly clean, so that chemical changes could not take place, the teeth would never decay, no matter how imperfectly the enamel may have developed. The same is true of the disease common to the gums.

Very few people realize the effect even one decayed tooth has upon the health, or consider that preventing the proper mastication of food, by nervous irritation, by poisonous putrefaction in the mouth, serious troubles are brought on. Two fatal cases have been known to result from decayed food packed in the cavity of a carious tooth, and time and again paralysis of the arm has been known to result from an exposed nerve in a tooth.

FRANCES BENNETT CALLAWAY.

ON HER BIRTHDAY

Her years steal by like birds through clouded skies
  Soft singing as they go;
She views their flight with sunshine in her eyes,
  She hears their music low,
And on her forehead, beautiful and wise,
  Shines Love's most holy glow.

There is no pain for her in Time's soft flight,
  Her spirit is so fair;
Her days shine as they pass her, in the light
  Her gentle doings wear.
On her fair brow I never saw the night,
  But Hope's glad star shone there.

It is a blessing just to see her face
  Pass like an angel's by—
Her soft, brown hair, sweet eyes, and lips that grace
  The smiles that round them lie,
The brightest sunbeam in its heavenly place
  Might joy to catch her eye.

Dear life, that groweth sweeter growing old!
  I bring this verse to thee,
A tiny flower, but in its heart the gold
  Of lasting love from me;
While in my soul that deeper love I hold
  Too great for man to see.

—E. W. Shurtleff.

INASMUCH

I.

Wild tempest swirled on Moscow's castled height;
Wild sleet shot slanting down the wind of night;
Quick snarling mouths from out the darkness sprang
To strike you in the face with tooth and fang.
Javelins of ice hung on the roofs of all;
The very stones were aching in the wall.
Where Ivan stood, a watchman on his hour,
Guarding the Kremlin by the northern tower,
When lo! a half-bare beggar tottered past,
Shrunk up and stiffened in the bitter blast.
A heap of misery, he drifted by,
And from the heap came out a broken cry.

II.

At this the watchman straightened with a start;
An old dear sorrow rushed upon his heart,
The thought of his dead father bent and old,
And lying lonesome in the ground so cold.
Then quick the watchman cried out at his post.
"Little father, this is yours; you need it most!"
And tearing off his hairy coat he ran
And wrapped it warmly round the beggarman

III.

That night the piling snows began to fall,
And the good watchman died beside the wall.
But waking in that better land that lies
Under the greater stars that are God's eyes,
Behold! the Lord came out to greet him home
Wearing the coat he gave by Moscow's dome—
Wearing his coat, the very coat he gave
By Moscow's tower before he felt the grave!

IV.

And Ivan, by the old earth-memory stirred,
Cried softly with a wonder in his word,
"And where, dear Lord, found you this coat of mine,
A thing unfit for glory such as thine?"
Then the Lord answered, with a look of light,
"This coat, my son, you gave to me last night."

—Edwin Markham's Latest.

A PLANT IN DISREPUTE

A PARTY of friends were on the porch of a little summer hotel at one of the resorts on Lake Erie beach.

They were all interested in plants, and each day spent many hours looking up the plant life of the country round. The question came up as to whether there was such a thing as a renegade plant in all the world of nature.

Several were ready to accuse the nettle of being at least one such vagabond in the vegetable kingdom. Others were able to defend the nettle so well that when the party broke up for the night the nettle had changed places in the minds of several from that of dishonor to one of honor. Here are a few of the things told that night about this plant:

The old Romans brought the seed of the plant into Britain with them, and sowed it almost broadcast at first, so that in the cold climate of what was then babarous Britany they would have something with which to keep warm, for they used to chafe their limbs with the nettle.

There are at least three hundred species of the nettle, of which our common plant is only one individual. Among the variety may be found the great stinging, the dwarf, the hedge, the horse, and, worst of all, the devil's leaf, which in the East Indies is most to be dreaded. This plant is cosmopolitan, growing in very dry places or equally as well in the wettest places in dense forests.

The flowers vary in different species, some having green and others purple flowers.

Nettles were valued in Bavaria a hundred years ago, for the sturdy old Germans said, "They can be eaten in salads, they cure consumption, and whether green or dried fatten cattle. They are good for sheep and calves, they fatten pigs and promote the laying of eggs with hens."

So much was said about the nettle that it really grew exciting, and every possible thing any of the defenders of the plant could recall they tried hard to do so.

One had read that in Bavaria the nettle grows all the year round, and the tender shoots make delicious pot-herbs for the "gude mon" of the house.

In Holland they feed horses on nettles, saying, "It makes them brisk and gives them a fine skin." In that country they plant fields of it and mow it as green food.

In the East Indies the roots are eaten raw or cooked as we cook potatoes.

The uses to which the plant lent itself were still further discussed.

The fibers of the stems of some kinds of nettles make lines and cordage as good as those made of hemp.

Then the plant has medicinal properties; the Egyptians specially make use of it in sickness.

In Australia the nettle becomes a tree, reaching the height of ten feet, and notwithstanding it is a stinging tree there is a bird that seeks it for its nest, and so obtains for itself the name of nettle-bird.

In song and story there are many legends of trees and plants, and nearly every plant as well as tree has its saint, named because of the tree or plant blossoming at the celebration of the saint's festival.

The common red nettle blossoms in the festival of St. Marcellus, and the woolly nettle greets St. Fabian.

One of the company threw out the fact that the nettle grasped firmly does not sting, and straightway the moralist of the party offered the suggestion that it was a fit emblem of life—if one makes the best of it, grasps it firmly, the sting is powerless.

To sum up the whole matter, probably all plants are made for man's use, only he is slow to find the true uses and benefits of each plant.

While nature is generous, she is at the same time economical, and it cannot be that there are too many plants, nor any useless ones, else she would not be true to her invariable rule. MARY JOSLYN SMITH.

ORIGINAL DESIGN FOR CROCHET KNOT-STITCH LACE

Use No. 40 spool-thread. Make a chain as long as the lace is required. *Make 2 knot-stitches, catch into eighth stitch of chain. Repeat to end of chain.

Work four more rows of knot-stitch. Break off thread and fasten into the fifth knot from the end along the edge, ch 10, catch into sixth knot; turn, put 20 d c into loop. The more loosely this is done the better the lace looks. Catch into next knot of foundation; turn, d c into every d c with 1 ch between. Catch into knot, turn, 1 d c in each of 4 d c, 2 knot-stitches, * 4 d c in next 4 d c, 2 knot-stitches *. Repeat from * to * twice, 4 d c in last 4 d c, catch into knot, turn, * 4 d c in 4 d c, one knot-stitch, catch into knot of last row, 1 knot-stitch *. Repeat three times, 4 d c in last 4 d c, catch into knot of foundation, turn, * 4 d c in 4 d c, keeping the last stitch of each d c on needle. Then draw thread through all the five stitches at once, and ch 1 tightly, 2 knot-stitches, catch into same knot as before *. Repeat around scallop, ending up with the last 4 d c. Catch to foundation; turn, 2 knot-stitches, catch into first knot of scallop, 2 knot-stitches, catch into next knot, and so on all around.

Work two more rows of knot-stitch around scallop, making each a little looser than the last. Break off thread and fasten in next fifth knot of foundation. Repeat for second scallop. JOYCE CAVENDISH.

CHINA-COLLECTING

How many of the farmers' wives and daughters are lovers of pretty chinaware? Nothing shows such refinement as a well-set table. No matter how well a meal is prepared, it will not be as inviting where it is served on old cracked dishes. It is often a hard matter for the housewife to purchase a full set of real china. The queensware-stores are offering great bargains, and the latest and prettiest styles are odd pieces collected from time to time wherever you find something to suit your fancy.

The prettiest collection of china I ever saw was while visiting a friend in Illinois. She asked me if I would like to see her treasures. She unlocked her sideboard and set them out one at a time. Each little cup and saucer was of a different design; there were a dozen in all, and had been presented to her by as many friends, and thoughtful friends they were indeed. Some were presented to her by her friends as souvenirs of their travels in some far-distant city, while others reminded her of some dear friends whose faces were missing. There were plates, each one a beauty, and other articles which she herself had added to the collection, which made it one any housewife might be proud of.

What a pretty custom it would be (when we are pondering over what to get our lady friends for Christmas, birthday or wedding presents) if we would decide at once to get them a piece of china. I once heard a bride say that while she valued her wedding gifts very highly, she was sorry to think that some day such things as table-linens would wear out, while her chinaware with care would last for many years.

Even a little child can be taught to take pride in something that will be more useful than some worthless toy that can soon be destroyed. I have a little girl friend who, though only six years old, takes great pride in her collection of cups and plates. While I do not mean to entirely deprive the child of toys, I would not advise that we confine our gift-making entirely to worthless toys, but cultivate the child's taste toward something more useful which will remind them of their friends when they are grown to womanhood. While those who are traveling have the best chance for collecting, we all can soon possess a nice set if we will keep our eyes open when in the cities and watch for bargains.

Begin with a set of dinner-plates all of one design. You may have a dozen or half that many, as you wish. As to the pie-plates you can use your own individual taste whether you have the set all alike or each one different; you cannot have too many of this kind, and they may be all sizes, and are useful for serving pie, cake, melon, etc. The cups and saucers are prettiest all of different designs. Then add to your collection a set consisting of tea-pot, sugar-bowl and cream-jug; these come in sets and can be had for a trifle. Then add to your collection a fancy fruit-dish, and dessert-saucers to match, several salad-dishes, another set of dessert-saucers, which may be used in serving salads, ice-cream and vegetables. Get two or three meat-plates and vegetable-dishes of different sizes. You may add a set of soup-plates, celery-dish, cracker-jar, pitchers; and many other things already named may be duplicated (but of a different design) and often come in useful. With a few pieces of crystalware you will have a collection any housewife might envy, but who can have if she will try, and if purchased a few pieces at a time the cost will not be missed. M. BELLE VAN HOUTIN.

"STAND-OFFISH" CHILDREN

"If there is one childish trait that I dislike more than another it is the 'stand-offishness' displayed by so many of the youngsters of to-day when one attempts to question or entertain them." It was at the mothers' meeting that this protest was made against the "whims" of children, but other mothers were ready to find many excuses for this trait.

One in particular struck the key-note of child-nature when she said, "It is not so unreasonable that they like to be treated with a little of the same courtesy that we show their elders.

"A little three-year-old is not at all shy, and will talk freely with perfect strangers, but she resents it highly if any one outside the family attempts to hold her. I cannot break her of this without severe punishment, and so, as it is not very important, allow her to have her own will in the matter."

Children are usually credited with greater powers of penetration than they really possess. Their liking or disliking does not prove that one to be either good or bad. They are apt, with few exceptions, to like any one who, while not giving them undue notice, treats them as having reason and sense, and as if it was fully expected that the children were well behaved and agreeable. And if this is what is included in the term "stand-offishness," it is a trait that should be cultivated, and not condemed, in the children.

P. W. H.

THE SOUL'S SPRING CLEANING

Yes, clean yer house, an' clean yer shed,
An' clean yer barn in ev'ry part;
But brush the cobwebs from yer head,
An' sweep the snowbanks from yer heart.
Yes, w'en spring cleanin' comes aroun'
Bring forth the duster an' the broom,
But rake yer fogy notions down,
An' sweep yer dusty soul of gloom.

Sweep ol' ideas out with the dust,
An' dress yer soul in newer style:
Scrape from yer min' its worn-out crust,
An' dump it in the rubbish-pile.
Sweep out the hates that burn an' smart,
Bring in new loves serene an' pure;
Aroun' the hearthstone of the heart
Place modern styles of furniture.

Clean out the morril cubby-holes,
Sweep out the dirt, scrape off the scum:
'Tis cleanin'-time for healthy souls—
Git up an' dust! The spring hez come!
Clean out the corners of the brain,
Bear down with scrubbin'-brush an' soap,
An' dump ol' Fear into the rain,
An' dust a cozy chair for Hope.

Clean out the brain's deep rubbish-hole,
Soak ev'ry cranny, great an' small,
An' in the front room of the soul
Hang pootier picturs on the wall;
Scrub up the winders of the mind,
Clean up, an' let the spring begin;
Swing open wide the dusty blind,
An' let the glorious sunshine in.

Plant flowers in the soul's front yard,
Set out new shade an' blossom trees,
An' let the soul, once froze an' hard,
Sprout crocuses of new idees.
Yes, clean yer house, an' clean yer shed,
An' clean yer barn in ev'ry part;
But brush the cobwebs from yer head,
An' sweep the snowbanks from her heart!

—S. W. Foss.

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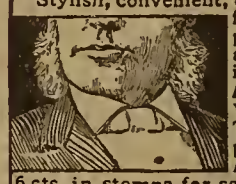
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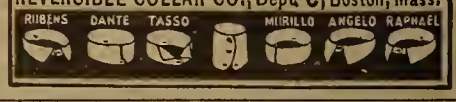

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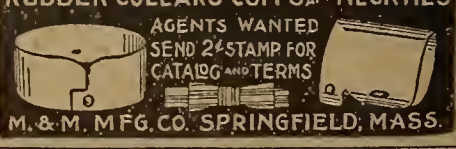
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TWO CHARIOTS

This is the chariot known as Fate, and these are the horses three,
They are known as Greed, Ambition and Strife, and the wind is not more free.
They are coursing the vast arena of life, and their goal is Destiny.

And who is it rides so swift away, oh, who may the driver be?
Stern shows his face through the clouds of dust—look and your eyes will see
The form of a daring rider there, and his name is Enmity.

Now, these are the horses black as night, and the driver fierce is he;
They feel the pitiless lash of pride as onward they swiftly flee—
For he seeks the glittering goal beyond, the goal that is Destiny.

But look where another chariot goes and drawn by horses three;
Their driver he drives with a gentle hand, and Love his name shall be,
For the horses he drives are Faith and Hope, and the third is Charity.

White as the foam that wets their lips are Love's swift horses three;
They, too, are rounding the course of life toward the goal that is Destiny;
But they trample no roses under their feet and none from their pathway flee.

Where Enmity's chariot-wheels have been a burning track shall be,
While Love looks back with a lingering smile, that all who will may see;
For Enmity rides with a fierce desire, but Love shall the victor be.
—Arthur Lewis Tubbs, in Town and Country.

A HARD PROBLEM

BY ELLA BARTLETT SIMMONS

AT LEAST so it seems to us. Some of you may have been so wise that to you the solution is easy, but to me the question of the children's Sunday afternoon is still somewhat a difficult one. We cannot go back to the old puritanical ideas—we would not if we could—neither do we want our little ones to have the continental idea of our holy Sabbath day. A happy mien is desirable.

It is not enough for us to tell our children that they must or must not do this or that; there is no real development in simply obeying a command. We must inculcate principles in their minds that will live with them after we have ceased to have jurisdiction over them. This Sunday problem is beginning to affect the nation as well as the home and church. This great question is not merely for to-day's solving, but must be worked out for these hastening to-morrows.

Children can readily be made to see that the fourth commandment is a very reasonable one. They can be made to appreciate the fact that the words were spoken in sympathy and love, and not in cruelty and hate. Our Heavenly Father did not utter these words merely because he was the omnipotent and had power to command, but because he saw that it would be the best thing for the human race to rest one day in seven. Statistics prove that in the long run time is gained rather than lost by allowing the brain, the nerves, the muscles, the horses and even machinery to recuperate once a week. When children thoroughly understand these facts the battle is half won. Of themselves they will desire to keep Sunday as a holy day, and will ask mama what is right and what is wrong.

Here is where the mother's tact and wisdom must be asserted. She wants them to have the true idea of the day so instilled into their minds and hearts that they may be able to answer many of these questions for themselves. There is a wonderful development in permitting children to do their own thinking, provided, of course, that from infancy up they have had correct ideas, true ideals, right motives and noble principles instilled into them.

Children will learn to love the Sabbath day. In fact, they should love it; we should see that they do. Their newest dolls, prettiest toys and most interesting books should be brought out for their use on this holy, happy day.

Boys and girls love to have their parents read to them. Nothing will make them happier than to have a family reading circle Sunday afternoon, with mama and papa as chief readers—papa is usually otherwise engaged, however. They do not tire readily of the ever-new though ages-old Bible stories, but it is not fair to expect them to want to listen to them all the time. The world is so full of interesting, good books adapted to their growing minds that other selections can easily be made. If you are reading natural history, teach them to draw the birds and animals they are reading about; have them talk freely about them. Many of us older children wish we had been taught to express ourselves better when we were young. We are too nearly like the pupils in school who "know, but can't tell it." Sunday afternoon is a splendid time to train not only the thought-powers, but those of speech, also. But by all means do it so naturally and informally that the children will never suspect they are being taught.

There are Bible-historical games, also little picture-books with Bible pictures in them. A blank space is left near the picture, that the story may be written in by the little owner.

Let Sunday be a bright spot in the children's lives.

HONEST RELIGION

There never was an age of more shams and deceptions than the present one. Advertisements are unreliable, agents over the country practising deception on the people. Men are asked to sign very innocent-looking papers that turn out to be notes; men bargain with you and later claim what was not included in the contract. Law-suits, bickerings, backbiting and all sorts of schemes and frauds are practised on men. Why is this so? Man is wicked at the very core of his being and needs to be righted. But what will do this work for man? No false religion nor the true falsely applied will ever reach the case. The true system, Christianity faithfully applied, will reach and remedy the worst cases known. Murry, the murderer, who lived to steal and kill, was saved by grace and lived an honest life thereafter. John Gough, the drunkard, was made a noble man after reaching the extreme point of delirium tremens. Mr. Tenney, of Seattle, who had persistently smuggled in goods at that port of entry for years, rose right up and confessed his sin, and turned over forty-five thousand dollars' worth of goods and real estate to the government collector at Seattle. But it takes genuine work to accomplish this purpose. No superficial, professional work will ever reach the case; no popular religion will save men from sin and its dire effects.—Christian Conservator.

DANGEROUS TO GET ANGRY

A study of anger from experiences in about two thousand cases, collected from reliable observers, has been made by G. Stanley Hall. The causes were many and various, and often being trivial, and the physical sensations accompanying it differed greatly with the individual.

Flushing was very general, although pallor was a characteristic in twenty-seven per cent of the cases. The heart-beats were violent, several cases of death from rupture of this organ being reported, and there were sometimes peculiar sensations in mouth and throat, sometimes dizziness or faintness, frequently tears, and generally copious salivation, which might produce frothing at the mouth.

Common sounds were animal-like cries in children, and oaths and threats in adults, while in many cases the throat was paralyzed and there was inability to speak above a whisper or without crying or trembling. Butting with the head, biting and scratching are noticeable in childish anger.—Stray Stories.

A MOUNTAIN IN THE WAY

Why does the church move forward so slowly? Why are its victories so meager? Why does it not attract millions to its ranks each year?

There are many reasons. Boulders, great and small, block the path of progress. But the one great impediment—the giant mountain in the way—is the faulty lives of those who are the professed followers of Christ. If there could be a mighty revival of righteousness in the church to-day we would have a mighty revival among sinners to-morrow.—Epworth Herald.

AN AMBASSADOR OF CHINA

The most popular speaker in America at the present time is not of Anglo-Saxon blood nor of European culture. A Mongolian, educated in China, Confucian in faith, Wu Ting Fang by name, is easily the first of platform speakers in this the greatest land of public speakers. Our young people should not fail to closely study this unique and fascinating personality. He learned in youth in his native land to speak English fluently. He is a close observer of men and things, keen of intellect, broad of culture, understanding his own countrymen accurately, and knowing the habits and thoughts of the Western world intimately. He has in the recent complications in China shown himself a diplomat of rare tact and sound judgment. His opinions have at times been opposed to those of all the leaders of Europe. In the end he was found to be correct.

He has recently compared the system of Confucius with Christianity in an address worthy of careful study by all who seek truth. He tells many things which are sobering to our pride. In all he shows himself one of the finest products of his land and age and faith, second, perhaps, only to Li Hung Chang, the most prominent, if not the ablest, statesman now living. If China can produce such men under Confucianism, what could she not produce under Christianity!

If Confucianism can make such men in China, what cannot Christianity make?—Baltimore Methodist.

THE FALLING OF A GIANT

A traveler describes in a very interesting way the impression received by one who is present at the felling of a giant redwood-tree. He says as the saw moved through the heart of the giant he begins to sag down on the side where the wound is gapping. Presently it is apparent that the tree is beginning to lean away from the cutters. They continue their work a moment longer; then is heard the cracking of the wood-fibers in front of the saw-teeth. Another swish of the saw and the noises increase. They give a report like firing pistols, and the rapidity of detonation of a gatling-gun. The sounds, getting ever more rapid, presently become a continuous roar. Then if you are standing near by and the tree is large you will get the impression that everything above is coming to earth; that the whole forest is falling. The great mass starts slowly to topple, crackling and exploding ever louder at its base, until, with a fearful momentum, it comes sprawling down, cracking and crashing and roaring, and hitting the earth with a thump as if a whole broadside of shells had simultaneously struck a bastion. Sometimes we see a man come down like that. He has stood out strong-looking and forceful before all the world; he has carried his head high and young men envied him, but the sappers were at his heart. The deadly saw of appetite or lust or passion cut away the supports under him until he came down crashing to the ground.—Current Anecdotes.

"I DON'T PRACTISE"

Too many church people are like a minister of my acquaintance, who was accosted by a countryman who had heard him called "doctor," and who supposed he was a physician.

"Doctor, do you practise here or in the city?" asked the countryman.

"I don't practise; I preach," was the clergyman's reply.

Too many of us don't practise—we just preach; and a very poor preach it is. The challenge of the world to the Christian is, "Prove your religion," which does not mean "preach" so much as "practise." Practised Christianity refutes skepticism, solves doubt, solaces sorrow, discovers Christ, creates heaven.—Dr. Vance, in Christian Endeavor World.

GREAT THOUGHTS

Success is the child of audacity.—Beaconsfield.

Swearing is a habit, and a foolish habit at that.

He makes no friend who never made a foe.—Tennyson.

Individuals may perish, but truth is eternal.—Gerrald.

Hope dries the tear which sorrow weepeth.—T. Ingoldsby.

He that falls into sin is a man, that grieves at it is a saint, that boasteth of it is a devil.—Thomas Fuller.

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My Wife's Missionary-Money

BY SUSIE BONCLIELLE WIGHT

A SHORT time after we set up our Lares and Penates in our own new home my wife broached the subject of missionary-money.

Now, this little woman is of very religious inclinations and habits, and I would not for the world be a stumbling-block in her path, although there is a distinct depression on my own head where the bump of veneration ought to be. I fell in love with her the first time I saw her. She was dressed in white, and singing in the clearest and sweetest of contraltos, "As the hart panteth after the water brook!" and so long as I looked and listened I heard no other voice in the choir. The holy atmosphere which surrounded her then has continued, notwithstanding we have passed through those first crucial years of married life which are supposed to be the period of disillusion.

It was while we were discussing the allowance which I was making her for housekeeping expenses, and at my request she was enumerating all that might come under the head of incidentals.

"Now, Thomas dear" (I am plain Tom to everybody else), there is my missionary-money; but that I must get through labor of my own or self-denial, so we need not provide for that in my allowance."

"How much will that be?" I asked, for I wondered how she expected to make money now that I had taken her away from her teaching.

"Well, I belong to the Woman's Foreign and the Woman's Home Mission Societies, and the dues for each are something more than ten cents a month. I also am a member of the Benevolent Association and the Little Sisters of the Unfortunate, and to each of those I give about two dollars a year."

"Why, such a small amount can easily be saved out of your allowance," said I, much relieved.

"No, my dear, I must make it my own self," she replied, firmly, "and the amount I have named to you does not quite represent all. There frequently arise special objects to which I must give; and then, too, I feel so often that I owe a thank-offering, for I have always been so blessed."

She looked so sweet and earnest that I dismissed my doubts and told her to do as she felt was right, and wondered vaguely if this small creature of gentle demeanor were really possessed of business qualifications which I had not suspected. We did not soon recur to the subject, and in the neatly kept account-book which I audited monthly I saw no item of money expended except for strictly household purposes, while to my certain knowledge she had not any money of her own. Her interest in her different branches of church-work was so keen, however, that I felt sure she was giving as much as she had been accustomed to, and once or twice she mentioned having contributed to certain funds which were being raised. I felt, of course, some curiosity, but I did not care to question her as to her ways and means. I believed she would give me her confidence sooner or later, and she did.

After a while there came a night of deepest darkness, when the moon refused to shine, and not even a tiny star gave a glimmer of light to cheer me; but the April morning when it came was alight with sunshine and blue skies, sweet with roses and glad with singing of birds. My wife lay on her pillow weak and white, but in her eyes was shining that light which never was seen on sea or sky, for her first-born lay cuddled up in the hollow of her arm. As I looked at them I felt a growing pain where my bump of veneration ought to have been, and I thought of the Madonna and Child and of angels and cherubs.

"Isn't he beautiful, Thomas?" asked the dear voice; and I told my first fib to her when I answered, "Lovely!" I did not see any beauty about him, for he was red and crawly-looking, and the contortions of his little face were quite uncanny; but there was really something very fascinating about him, and I looked at him every moment when I could take my eyes away from Saint Elizabeth on the pillow. Poor Saint Elizabeth! her roses had all vanished, and I had been so wont to tell her that she carried them in her cheeks!

Well, I kept looking and admiring, and my heart felt like it would fill a bushel measure. So when my wife asked me, gently, "Aren't we blessed, dearest?" I did not hesitate in replying, "Blessed and thankful!" The tears sprang into her eyes, for this was the nearest approach I had ever made toward her own devout spirit.

She grew stronger rapidly, and in a day or two she asked me if I really meant it when I said I was thankful. I promptly assured her that I did, for the little red baby kept growing more fascinating. "Then, Thomas dear, what about your making a thank-offering? It is such a sweet way to express gratitude, and you will be blessed in the giving." So we settled it by deciding that she should give my ten dollars to the treasurer of her Foreign Missionary Society, to be used toward the building fund for a school in China. The weeks went on apace, and when she called on me for the money, on the occasion of her first reappearance at a meeting, I had to conceal from her that my enthusiasm had waned to such an extent that I felt a pang at what seemed to me a waste of good money. Thomas Jr., who also had the name of Wesley sandwiched in between that and our family name of Haven, had passed well through the initiatory stage of what seemed to be a well-marked case of three-months' colic. I had walked and patted him for hours at a time, but he just went on developing his lungs, to my infinite disgust, though one tiny rudimentary smile now and then would efface my ill-humor and kept me his slave. I think Saint Elizabeth prayed over her unruly baby—I know she wept, and would have fasted if she had not feared the effect on Thomas Jr.'s commissary department. She stayed pretty closely at home until he began to be heard a little less, so I did not notice the state of her wardrobe for some time. One Sunday morning, however, as we started to church, I said to her, "Elizabeth, are you very fond of that blue dimity you have on? It seems to me you have worn it every time you have gone out since baby came."

"Oh, no, dear; I've worn shirt-waists quite a bit, too," she said; and I saw a faint pink steal into her face, which had not yet regained its roses.

"Well, shirt-waists are not quite the thing for church wear, and I love to see you in white, so go change your dress, like a good girl. We have plenty of time."

"But, Thomas, I've not made anything this summer. You know baby has kept me so close," she remonstrated.

"Where are those stacks of dresses you had last summer? I am especially fond of that dotted swiss, and it surely doesn't look old-fashioned already." I don't see how I could have been such a dunce as to persist, but I did, and directly my wife's face was scarlet and the tears began to flow. Now, I never could stand anything like this, so I just put my arms around her and tried to undo my work. I assured her that she was lovely in anything, and exquisite in blue dimity, and begged her to dry her eyes and come on with me to church.

"No," said my honest love; "I must explain to you right now" So she led the way to her room and opened her big trunk. I saw plenty of odds and ends and some lingerie, but with the exception of one or two pitiful little shirt-waists there was nothing in the way of outside garments.

"Where are your clothes, Saint Elizabeth?" I asked, as something began to dawn on me. She sobbed it out at last that she had sold her pretty furbelows to negro girls on the instalment plan, in order to get her missionary-money.

"You know, I had to make it as I told you, Thomas, by my own work and self-denial, and I couldn't teach any more. It is self-denial for me not to have lots of pretty dresses, so I believe it was an acceptable sacrifice for me to make. Why, I sold my swiss gown, my leghorn-hat and my blue-taffeta waist to get the ten dollars for my thank-offering for baby, and the negro girl who bought them hasn't quite paid half, and Maum Peggy says she has run away now and I never will see her again!"

"Of course," said I; "that's constitutional with the race. But did not I pay that thank-offering?" I felt a little wicked, but a "google, google, goo," was floating to my ears from the adjoining room, and I managed to keep my voice gentle.

"Oh, hut, dear, that was your offering and to the foreign work! Could I fall behind you in gratitude for our darling? I gave mine to the home society, or will give it if I ever get the rest. Don't you understand how it is?"

I thought I did, and telling her we would try together to devise a better way we went to church. She sat through the service with a chastened look on her face, and half-provoked though I was I was more in love than ever. I never did admire a woman with business sense.

The next day I called for Elizabeth's sister to make a shopping trip with me. She is my wife's criterion of good taste, and she would not buy a ribbon without Ida's approval, so I felt quite safe in what I was about to do. I told her what I wanted, and why, and when she looked at me with a laugh in her eyes and trembling around the corners of her mouth I stared at her with utter lack of responsive mirth, for I do not care to have my wife made fun of. We bought the prettiest of dresses, yards of lace and ribbon, and the loveliest hats, so Ida said, and she was the same size as Elizabeth, so she had everything made as modishly as possible. We kept it a profound secret, and I smuggled the lay-out into that pitiful half-empty trunk. When the time came for church again I seated myself by Thomas Wesley's cradle when madame started toward her trunk for the blue dimity. By the by, I had sold that blue dimity to the nurse privately, and I impressed it on her that if she did not leave her wages with Mrs. Haven until it was duly paid for I'd know the reason why. I had to intimidate her to make her buy it, but I recognized some of her finery as having been my wife's, and I knew it had brought precious little missionary-money, too, and I felt fierce.

I sat and listened, and directly there was a sound of weeping from the vicinity of that big trunk, and then a laughing, crying lady came flying to my arms. Now, what do you think that adorable Saint Elizabeth said?

"Oh, Thomas darling, it is always so! When one makes a sacrifice for the Lord's work he repays it so many, many fold!"

I was a little frightened at the thought of other sacrifices, but she set my fears at rest.

"I will never sell my clothes again, though. I know we will find a better way."

So we went to church, and she wore that same rapt and holy look as when she had no new dress to distract her.

I must confess that as this all blew over I forgot my promise to help her plan for her missionary-money; but she had made up her mind to have no more secrets from me, so she laid her new project before me soon.

"It's chickens, dear. I have been reading so much about the money one can make that way, and our lot is so large that I think I can do nicely with them."

Well, this sounded reasonable enough, so I offered to buy her fowls for her and advance all that she would need about her buildings, and let her pay it back when she began to take in her profits. Accordingly our tables were deluged with poultry papers for a while, and she planned everything beautifully. She had one yard made for Leghorns, who would turn out eggs like egg-machines, and instead of buying, as heretofore, from the grocer she would place each dozen she used for our table to her credit, at current prices, and also sell quite a good many besides. In another pen she would have Cochins to do the incubating and supply broilers. I was quite enthusiastic over all this, too, and was as proud as Elizabeth was when I surveyed the neat yards and the beautiful fowls. It had been a little expensive—all this getting ready—but it pays to have the best of everything, and my wife felt no doubt but that she could reimburse me within the first year. Our neighbors were interested in the chickens, too, and so admired them that Elizabeth booked several orders in advance for eggs for hatching. Pretty soon the Leghorns began to lay, and we made almost as much fuss over those eggs as the hens did. My wife certainly was a proud woman when she filled her orders.

"I've enough now to pay all my regular dues for the year, so I will just get them off my hands right now, and then I can begin reducing my expense account."

So she paid up for the year, and waited for more orders, which were very slow in coming, and the eggs she used and paid herself for out of her allowance did not more than buy the necessary feed for her fowls. About this time, however, I made a lucky business deal of which I said nothing to Elizabeth, for I was afraid she would pull me for another thank-offering. Not that I object to the principle at all, but my means are very moderate, and I think it is well enough to be prudent. It occurred to me, too, that I could relieve my wife of what I felt sure was to her honest heart a perfect burden of debt, so I told her just enough of my good fortune to convince her that it was a real pleasure to me to give her the poultry outfit, for the good of the cause. Her delight was not of long duration, for her hens soon began to misbehave. In the first place, those Legborns flew and they scratched. If the damage had been confined to our own premises it would have been bad enough; but our neighbors suffered, and not in silence. Elizabeth had another story added to the Leghorns' pen and remedied the trouble, though now and then we would find a brown hen on the wrong side of the fence, and of course nobody had ever left the gate open.

Then when we had rested a little from this annoyance my wife complained that she was not getting near so many eggs as usual. We kept the pens locked at night, so she could not think they were being stolen; but she was not long in doubt after she saw one of her hens alight from her nest, cackle a few times, and then scratch the new egg out. She then proceeded to eat it, and was eagerly assisted by other wayward hens and the master of the flock. This egg-eating habit spreads very rapidly, and Elizabeth was in despair. She went to see her aunt in the country, who told her that she had better kill all those hens at once, as she would never be able to break them. I then suggested that she do away entirely with her Leghorns. She reluctantly agreed, and made some effort to sell them; but failing in that, I paid her the original price of the fowls, which was more than so many fat gobblers would have cost me, and insisted that we have them on our own table, as I knew they had been well fed and were in good condition. I thought she would apply that money toward her feed bills; but just then there were several special objects preying on her tender heart, so she paid her share toward them, in order to get them off her mind. We ate the Leghorns, but as a table-fowl I must say they are a great failure, just about the right size to fry when in age they are ripe to roast.

The Cochins had been laying some, and soon began to cluck. As well as I remember, Elizabeth said they laid an average of eight eggs to the hen before they wanted to sit, and of course it was necessary to buy a few eggs to make out the requisite number for a sitting. But we did not mind that, for we were already counting the chickens. Now, I do not know how to account for it, but those Cochin hens certainly acted very strangely. Most of them left their nests and resumed their laying after about two weeks, and in order to keep the eggs they had deserted from spoiling we doubled the portion of the few faithful hens regardless of capacity. All this was trying enough, but was only a preparation for worse. When hatching began, those great, heavy hens mashed the little chickens to death before they half emerged from their shells, and in their efforts to dispose of their clumsy feathered feet they broke their infertile eggs right and left, until those nests were a spectacle for men and angels. Now, this was too much for me, so I turned them over to Elizabeth, who was also very much discouraged. She took the few surviving little chickens, however, and gave them all to one mother-hen in the Leghorn yard, cleaned up those nests and began over again. After order was restored I still felt a hankering for the chicken-yard again, and resumed my accustomed visits there. The little Cochins were beauties, and grew rapidly from yellow balls of fluff to long-legged, half-naked monstrosities which suggested the gridiron in a way to make my mouth water. A second attempt at setting was but little more successful, so I suggested to Elizabeth that we should buy a small incubator and try that way of raising chickens.

"Elizabeth, are you very fond of that blue dimity you have on?"

"I would love to have one, Thomas," she replied, "but there is the expense to be considered. I never have paid you yet for all the feed I have used."

"Well, my dear, I will donate all necessary feed for the good of the cause," said I. "I have made another little spec lately, so I can afford to put a little more in the sinking fund."

"Thomas! To call it that!" she ejaculated, reproachfully; and I realized that my poor attempt at wit was ill-timed, for she would hear no more of the incubator, and hinted that she would yet pay the feed bills.

The incubator stuck in my mind, however, so I resorted to subterfuge. I explained the situation to Elizabeth's aunt in the country, and persuaded her to use some money which I would give her to buy a certain machine, which she was to present to my wife. Aunt Jane did not comply very readily; but flattery is just as potent with gray-haired women as it is with younger ones, so I carried my point and Elizabeth did not suspect me. Her delight over the incubator was beautiful to behold.

"Who would have thought it of Aunt Jane to do such a thing! It is as I've always told you, Thomas, the Lord will provide for his own! I am so glad now that I did not let you buy a machine when you insisted so!"

She sold me all her broilers for cash in advance, and bought up a lot of fresh country eggs with a part of it. Then we had quite an exciting time when we first fixed up our incubator—you see I say 'our,' for I felt something of a proprietary interest in the thing, though I was careful enough to apply the second person possessive in speaking to my wife. I wanted to help her, but she promptly vetoed this, and waded bravely into her troubles alone.

She had the tank filled with hot water, and watched her thermometer until the egg-chamber was at the correct temperature, and then her trials began. There was a sort of lever concern which was supposed to raise a valve when the temperature went too high, and to fall again when it went down to one hundred and three degrees Fahrenheit. This, of course, was an admirable contrivance which would keep a perfectly even warmth, and as it was on the outside of the incubator Elizabeth had only to notice it now and then to keep things moving on. Well, she watched it closely, and the lid, or valve, did not rise; but curiosity got the better of her, so she opened the egg-chamber to inspect the thermometer.

"Goodness, Thomas, it has gone to one hundred and ten degrees! Why do you suppose the lid did not rise?"

"Because you have not properly adjusted it, perhaps," said I; and with the book of instructions I proceeded to remedy the oversight, and madame did not object at all. She put out the lamp and watched the thermometer until it registered one hundred and three degrees again, when she resumed operations with the wick turned lower. We tinkered with that lever for several days, and finally gave it up as beyond us; but Elizabeth, by constant watching, kept the heat about right. She got up all through the night to see about it, and soon showed signs of her disturbed slumbers in her pale face. This I could not bear, nor would I give up my own rest for anything except the baby, so I held out firmly until she had to agree to let the thing run itself through the night. The temperature never ran very low nor ever too high after she learned to keep the lamp turned low, and I knew that it would not be fatal to the unhatched chicks, for I had seen our Cochin hens leave their nests for hours at a time and then hatch no worse than did those faithful ones who nearly set themselves to death.

By this time Thomas Wesley, whose name had degenerated into Tommy Traddles, had grown into a sunny-haired toddler, and was more fascinating than ever. His mischievous tricks form quite another story which I must not now touch, but for the sake of accuracy I must tell of his connection with the last mishap which occurred before the eggs were due to hatch. Things had gone on so smoothly that Elizabeth felt she could take a day off with Ida, so she turned her egg-trays, put her lamp in first-rate trim, and dressed herself and Tommy. Before going, however, she ran into the sitting-room to take a last look at the thermometer, her small satellite at her heels. She had a lovely day, and when I drove her home in the afternoon her eyes were brighter and her cheeks rosier than I had seen them since she began to raise her missionary-money by means of the chicken business. She ran to her machine at once, opened it, and then such an outcry.

"Thomas, this thermometer is down to sixty degrees! What in the world!" She turned up the wick, but lo! no flame appeared.

"You, Maum Peggy, have you bothered my incubator?" she demanded of our old cook, who had been left with the house.

"Good Gawd, no, Mis' Lizzie; what you reckon I gwine monkey wid dat 'frigerator fo'? I seen Tommy punch dat little trick dar, dough, dis mawnin', when you wuz a-lookin' at yer kermometer." She pointed to the patent brass extinguisher and the matter was explained.

We fixed up again and poured some boiling water in the tank, and soon the wooden hen was sitting properly again; but Elizabeth wore a very anxious look for several days.

When hatching-time came I made an excuse and stayed at home to watch proceedings. I do not know who was happier, Saint Elizabeth, Tommy Traddles or myself. It was quite wonderful to see the chicks, wet and disgusting-looking as they kicked themselves out of the shells, gradually evolve into downy balls, and there really was a very fair percentage of chickens from the eggs we had tested as fertile.

We rigged up the new brooders (Elizabeth kindly allowed me to help) and gave those little orphans a wealth of tender attention. They were so cunning that I wondered why so few people raised incubator biddies, while Tommy Traddles deserted everything else to stay in the brooder-house. Elizabeth was kept rather busy for some days exhibiting her treasures to admiring friends, but she found time to attend her incubator again. It had first to be removed from the sitting-room, where we had thought it would be rather an ornamental article of furniture, because as soon as heat and moisture began to tell on it its beautiful smooth poplar top had become warped and swollen out of all shape.

This time Elizabeth put in a tray of duck-eggs a week before she finished filling it with hen-eggs. She had read that ducklings are easily reared, and I encouraged her to try them. The hatching process went on as before, and again the goodly number of little orphans encouraged us to try a third sitting, although it was growing rather late in the season.

The brooder-yards took up a great deal of Elizabeth's time. There were some mishaps there, but in the main the orphans grew nicely, and she felt that at last she was in a fair way to make a pile of missionary-money. It was troublesome, though, to catch two hundred chicks every night and every time a shower came up, and it seemed impossible to teach them better manners. They were like Tommy Traddles, who fought off bed-time as long as he could keep his eyes open, and who reveled in a shower of rain.

One day Elizabeth called me to bring Tommy out to see the little duckies swim. She had a tub in the brooder-yard filled with water, and it really was very interesting to watch those fluffy things propelling themselves around in it. We kept them in as long as it seemed that they enjoyed it, and then meandered into the Cochin pen, forgetting for the moment to call Tommy Traddles to follow. We found a hen hatching, and were so busied that we still did not think of him, and did not miss him until we went into the house. Elizabeth went in search of him, and directly I heard her scream. I ran to the rescue, and such a sight as met my eyes! Thomas Wesley stood aloof with one finger in his mouth, and my poor afflicted wife was fishing in that tub. She laid three half-drowned ducklings on the grass to dry, and then came chicken after chicken, limp and dead. Tommy had wanted to "see the duckies 'wim!'"

July was a very rainy month, and too much moisture was bad for the chicken business. Many sickened and died, and such as survived were the runniest-looking lot of fowls I ever saw. They did not grow anywhere else than in their wing-feathers, and these trailed on the ground in the most extraordinary way. The more Elizabeth fed and physicked, the more they died, and I again lost all interest in them, as the Cochins were also acting badly. One morning, however, I stopped to look into the brooder-yard, and was surprised. Not a drooping wing was in sight, and it was quite an improvement, though they still were sad-looking biddies. Elizabeth was puttering away behind the brooder-house, so I went in, and what do you think she was doing? Nothing more nor less than shearing off those chickens' wing-feathers. She blushed scarlet when she saw me and laid her scissors hastily in her apron-pocket

"Why, my dear, what are you blushing about?" I asked.

She hesitatingly came to me, and then burst out, "Oh, Thomas, Aunt Jane is coming to-day, and I could not bear for her to see these dreadful-looking little chickens!"

"So you tried to fix them up, my poor little wifie," and I drew her to me to sob out her discouragement and mortification on my shoulder.

Now I could see that she was worrying over it a good deal, so I set my wits to work to remedy matters. I sent her and Tommy Traddles to the seaside for a few weeks, promising to take good care of her poultry while she was away. I made Maum Peggy help me, and proceeded to carry out the best of all the plans I had been able to think up for getting rid entirely of the whole business. I carried that incubator into the back yard and piled the brooders upon it I took the excelsior out of the nests and placed it underneath and then stuck a match to it. It made a very pretty bonfire, and I wished for my boy to enjoy it with me. I then proceeded to the brooder-yard. Such chickens as were there, "a remnant weak and small," I beheaded and buried, and I then crated up the Cochins and sent them to Aunt Jane. Not that I had any grudge against her, but because I had heard her express a wish for some like them.

It was only after the dividing-fences were removed and the brooder-house torn down that I turned my thoughts toward breaking the news to Saint Elizabeth. I considered the matter most carefully, and I could see that I had been much to blame in not making her feel at the very outset that she had as much right to give to her mission-work as I had to blow in a much larger amount in fishing frolics, which were my hobby. I felt that if I could have convinced her of this her idea of personal effort and self-denial would not have been persisted in I reproached myself for the poultry failure, for I had the fever quite as badly as she did, and had made a cat's-paw of my sweet wife in a most cowardly way.

I am not in debt to any man, so the laws of my state did not prohibit me from giving property to my family. Accordingly I deeded to Mrs. Elizabeth Haven a certain row of small tenement-houses, which brought in very nice rents, and inclosing the titles with a full letter of explanation, I sent them to her.

The next mail brought this letter:

MY DARLING THOMAS:—How can I ever thank you enough for relieving me of that terrible poultry business? It was making me so wicked and deceitful, and I did not know how to get rid of it. I can see now that it was nothing but spiritual pride and self-righteousness which made me persist in trying to make my own missionary-money; and now that the dear Lord has taught me my lesson he has provided as he always does, and has put it into your heart to give me the houses for his work. I shall leave the management of them with you, if you will take it, and will try to spend the rent-money very wisely. Little Thomas and I are improving every day, and will be so glad when the time comes for us to go back to the dearest of husbands and fathers.

Your grateful and penitent wife,

ELIZABETH HAVEN.

THE MILKMAID'S SONG

BY MADELINE S. BRIDGES

I milk and sing, lest neighbors listen,
For none must know, ah, none must know,
How on the grass my bright tears glisten,
As fast they flow, and fast they flow!

The sun sinks red behind the thicket,
The air is still, the air is chill,
But no one pushes at the wicket,
And no one climbs the lonely hill.

My pretty cow, do you, too, wonder,
With thoughtful eyes, with watchful eyes,
Why to my song no gay voice yonder
With song replies, with song replies?

You knew his footsteps in the clover,
His merry tone, his coaxing tone—
You knew he was my one dear lover,
And all my own, and all my own.

Ah, well, the young rose has her glory
Ere thorns lie bare, sharp thorns lie bare—
Love tells again the old sad story,
And everywhere, and everywhere!

I milk and sing, lest neighbors listen,
For none must know, ah, none must know,
How on the grass my bright tears glisten,
As fast they flow, and fast they flow!

Captain Crusoe's Feather Fan

By Lu M. McKnight

GETHERAL'S usually smooth young brow was drawn into "think-puckers." She was supposed to be trying to prove that since "x" equals thus, "y" must equal "so;" but in reality her thoughts were distant just one and one half miles. The lodestone in the case was a beautiful feather fan recently displayed in the window of the Star Store in the adjacent village. She could see the white ostrich-tips curling so gracefully above the polished ivory sticks. She could almost feel the delicately perfumed air on her cheek as she in fancy gently waved it to and fro.

The soft south wind stirred the rose-leaves about the open window, against which the fair head rested. It lifted the pretty curls and cooled the flushed cheeks. Golden rose-petals softly fluttered down outside the window. Honey-bees and many-hued butterflies flitted lazily about in the mellow sunshine. Such a delightfully "dreamy" evening! She took deep breaths of the sweet-scented air, so conducive to idleness and day-dreams, and was fast losing herself in one of those airy castles young girls delight to rear.

A humming-bird whirred past. With a start Getheral lifted her head, recalled her far-away thoughts, and giving herself a little shake tried to study. She had, a few minutes before, reached home after her long walk from the village high school. April days in "sunny Kansas" are frequently warm enough to make such a walk tiresome. Her rest-time was usually employed in preparing her lessons for the next day. To-day it was hard for her to center her thoughts upon the perplexing algebra. Usually she really enjoyed wrestling with the perverse equations, for mathematics was her delight.

"Now, you distracting beauty," shaking her pencil in the direction of the village and the fan, "I do herewith renounce all further thoughts of you until my lessons are prepared." Setting to work in earnest she made good progress; but whenever she relaxed her thoughts for a moment and felt the soft air on her face her mind would wander to the fan. At last the lessons were prepared, and as she closed the last book with a contented little sigh she again rested her head close by the rose-leaves and yielded herself to a delightful day-dream.

Getheral was the eldest of the quartette of girls in the Winston home. The greater part of her fifteen years had been spent in the rambling old farm-house of "Maple Ridge," Raye, the second daughter, the wit and mischief of the family, being but a babe when Marshall Winston and his wife came to this home in the West. Marjory—frail, delicate Marjory—the artist-soul shining in her large blue eyes, and baby Marie completed the Winston quartette. Teddy, the only boy, was a typical "small boy" and "little brother."

Indulged daughters will perhaps not appreciate what it would mean to Getheral to possess the pretty fan. Mr. and Mrs. Winston had some very old-fashioned ideas about school-girls' lives, holding they should be very simple and quiet. Hence, their daughters were denied many "parties" and social functions which their school-mates attended.

Getheral and Raye sometimes thought this a little hard, and many were the mutual consolations and conferences held in their little bedroom up-stairs over what seemed to them lost opportunities for "good times." Still they were sensible girls at heart, and when they observed the drowsy eyes, tired brains and ill-prepared lessons which invariably succeeded each "lovely" party each would acknowledge to herself, though not to the other, that perhaps their parents knew best, after all.

"When 'boy' is on the brain there is little room for study," was one of Father Winston's oft-repeated and sensible quotations to his daughters. "Books and parties do not agree worth a cent," was his almost invariable reply to a request to attend "just this once;" and in this orthodox Presbyterian home the daughters were too well trained to question parental authority.

These old-fashioned parents also had very peculiar and decided ideas about dress, considering silks and satins entirely out of place in the school-room. The Winston girls always looked neat and pretty, thanks to mother's refined taste and marvelous touch. Simplicity and modesty were held to be cardinal virtues, while frivolity and useless show were condemned.

Getheral well knew that although she could far better afford the silks and jewels displayed by some of her girl friends than could they, financially speaking, yet it would be worse than useless to ask for them. While her sensible young heart admitted her parents' superior wisdom, yet when her friends displayed their finery and chatted about their "splendid" times her girlish heart would ache a little. She had not so much as mentioned the pretty fan to her mother, well knowing how futile the thought of owning such a fragile, frivolous thing; but how happy she would be to call it hers!

The blue eyes at the window were fast closed now, and their owner was having a queer dream. She with some girl friends were in a great forest. The delicate fragrance of wood-violets was in the air; above her an airy, soft fluttering. Looking up she saw that the trees bore, instead of leaves, fans of every description. A bewildering sight they presented, with their variety of color, shape and size. Some were being gently opened and closed by the wind; others were merrily dancing up and down, and all seemed waving beckoning hands to the girls. A wild scramble then began to secure some of the wonderful fans. Getheral, as excited as any, leaped and ran and climbed—in vain. She could see the other girls comparing the fans they had secured and talking with laughing voices. Desperate with disappointment and longing, she made a frantic leap to grasp a lovely counterpart of the Star Store fan, swinging its tantalizing beauty so near. Oh, joy; it was in her hands! It was hers at last! Scarcely waiting to admire her treasure, she turned to run with it to her companions. Bewildered and excited, she stumbled and fell, striking the precious fan against a stone. Crash! and the splendid ivory sticks lay at her feet shattered. It was too much; she did not try to rise, but gave vent to such heart-rending sobs that—

"Why, Getheral, daughter! what is the matter?" Getheral started up, but fell back again in her chair, faint and trembling, so real had been the dream. Mrs. Winston, alarmed, brought a glassful of water. "Where is the pain, dear?" she asked, with motherly solicitude.

"Oh, don't, mama; there, I'm not sick! It was just a foolish dream! When my lessons were finished I rested my head against the window and was—thinking—it was all so dreamy—and—I'm all right now, mama! I'll just run up-stairs and get on my 'labor uniform' and help about supper!" Kissing her mother, who still looked a little worried, she ran lightly from the room.

The girls teased her to tell her dream, but she shook her head. "It was too foolish; I want to forget it." That night, after they had retired, Raye kept suggesting such absurd dream subjects that Getheral, to quiet her, did just what Raye knew she would—told her the dream. Moreover, she confided to her sister her deep and secret longing for the beautiful fan.

"Pshaw! I wouldn't worry so over an old feather fan. Captain Crusoe carries a handsomer one every day. If those feathers were really alive—I mean"—Raye was getting sleepy, now she had accomplished her purpose—"if it were a truly ostrich and you couldn't have it—but old dead feathers and elephant's teeth, huh!" Turning away, Raye was soon in a dreamland of her own.

Raye had a passion for pets, and just now birds and chickens were the favorites. Captain Crusoe, her pet chanticleer, was her especial pride; and, indeed, he was a splendid specimen of feathered Cochin beauty. Dazzlingly white, his long feathers gleamed in the sunshine like polished crystal.

The next morning Getheral took a good look at Captain Crusoe's feather fan of which Raye had spoken, and he seemed so proud. Yes, those gleaming white feathers looked very beautiful indeed. Then an idea popped into her head. There were several spotless-white hens lazily preening their feathers in the morning sunshine.

"Yes, I believe I can do it;" and with an emphatic little nod she turned back into the kitchen.

"What is that you can do, Getheral?" asked her mother.

"Oh, I was just watching Raye feeding her flock and thinking aloud—a bad habit of mine which I must break, mama."

If Getheral was a little absent-minded about the breakfast-work Mother Winston did not seem to mind. Perhaps she was not unaccustomed to it, for that is a habit prevalent among girls of her age.

When Getheral came home that evening she had several cheap paper fans very much the shape and size of the ordinary palm-leaf. Selecting the strongest, she took Marjory into her confidence, and together they slipped away to "talk it over." Raye, absorbed in "Little Women," noticed nothing. The next evening, just as Raye had comfortably settled herself in the ham-

mock to again follow the fortuues of "Jo," her favorite little woman, she beard terrible screechings from the hen-bouse.

Captain Crusoe aud a few chosen favorites disdaiued to mix with the common herd in the hen-house, but perched themselves on the partition between the buggy-shed and the milking-stalls adjoiuing the heu-house. At the first squall Raye was out of the hammock, overturning baby Marie, who was contentedly pulling dandelious to pieces near hy. Grabbing an old mop-stick as she flew hy the summer kitcheu, she hurried to the rescue of her pet.

By the time she reached the scene all was quiet. Captain Crusoe was settling himself, hut seemed excited.

"Yon rogue, to give me sucb a chase all for nothing! Whatever was the matter?" Raye was provoked and a little disappointed, for she was fond of adventure, and was prepared for a skirmish with some sort of a chicken-thief, which she expected to encounter.

The Captain looked very wise, and rising on his perch crowed lustily, after which he nervously eyed certain distant dark corners. One more piercing crow and then he settled dowu sleepily. Raye trudged back to the house, dragging the unused mop-stick.

Then from a distant corner of the hig haru came suppressed laughter and frantic whispers.

"Why didu't you bold his head just a minute longer, Marjory? I would have had all the prettiest in another pull or two."

"Oh, Getheral, his old ueck—wiggled—just like a—a snake! I just couldn't hold on another second!"

"Well, never mind; I managed to save what we had, so we have enough to begin with. But didn't we have to run? And Raye—didn't she look funny?" and again tbey laughed.

The old haymow could tell the secret of a wonderful feather fan; how two girls, patiently and with great care and skill, transferred, feather by feather, Captain Crusoe's handsome "fan" to the bit of pasteboard. All his prettiest tail plumage and even some from bis hreast and wings, and from the white hens, also, were sacrificed to furnish enough to cover one side. The other side was smoothly covered with satin. The cheap-looking handle troubled them until Marjory suggested painting it white. This done and ornamented with a large how of pale hlue the fan was really very pretty.

"Getheral! It's lovely!" Marjory's eyes and hands expressed sincere admiration.

"I wish I could see bow it would look in the Star Store window?" sighed Getheral, thinking that would be a satisfactory test. And indeed, had it had for a background the silks, laces, etc., of a show-window, instead of the old haymow, with discarded feathers lying about, the fan would have compared very favorahly with the one which had inspired its constructiou.

"Surely it is pretty," said Getheral, trying to convince herself. "We will put it away for a while and try to forget Captain Crusoe and the haymow, and then we will look at it again."

Then they looked at each other and laughed, as though it were likely they would forget the secret of that fan. It was then smuggled away to the house and hidden.

"Mama," said Raye the next morning, "something is the matter with Captain Crusoe. He creeps around so quietly lately. It may he hecause he is molting, for I notice he has lost his handsome tail plumage. And he seems shy of me—won't let me touch him. He squalled dreadfully the other evening, too."

"Put some of those powders in his buttermilk, dear," counseled Mrs. Winston.

Getheral and Marjory exchanged telling glances and immediately repaired to the "rook's nest," a seat in the top of a large cherry-tree, to give vent to their feelings.

"What are those girls laughiug ahout? I'm going to see," called Raye, as she ran. "What's so funny, girls?"

"Fond recollectious," sang Getheral, and she laughed.

The fan was undisturbed for three weeks, Getheral lacking the courage to show it to her mother.

Commencement was hut one week distant and Getheral would become a "sweet girl graduate." She bad worked faithfully, and when the grades were announced at the close of the last month hut one hers was the highest, which entitled her to the honor of "valedictorian." Her classmates showed their approval in genuine high-school fashion.

Now the wonderful "essay" was finished and ornamented with the class colors, white and blue, and the dainty dress completed to the last knot of hlue.

"You ought to have a pretty fan, Getheral," said her mother one day, when they two were hy themselves in the little room in which was hidden the fan.

Without a word Getheral brought the hox and held it out unopened to her mother. Wondering a little, Mrs. Winston silently lifted the lid, and was greeted with the delightful fragrance of wood-violets. The only reply to her questioning look was her daughter's smiling eyes, and "Unwrap it, maua."

When the dainty fan was in her hand she looked her surprise and admiration. "Why, child, where did you get this lovely thing?"

"It's Captain Crusoe's, mama."

"Captain who? Then how do you—" a light broke over her face. "Do you mean to say you made it, Getheral?"

"Marjory and I did. And what do you really think of it, mama?"

"It is beautiful, and will match the ribhons on your dress nicely, dear."

"Yes, I saw to that, mama," laughed the happy girl, now satisfied that the fan was a success.

Commencement-evening had come, and fair and sweet looked Getheral in her place among her classmates. With quiet grace she cooled her flushed cheeks with Captain Crusoe's feather fau. Once, with an expressive gesture, she looked down with smiling eyes at her sisters. They were immediately convulsed, and were only quieted hy a look from their mother, which was meant to be severe, but which failed utterly in its purpose, as she had to use her own fan to hide a smile on her own face.

Getheral acquitted berself nobly. "Did us all proud," Raye admiringly said. Among her presents was the very fan she had admired in the window. Raye then laid claim to Captain Crusoe's feather fan, "By right of previous possession," she explained. However, mother thought it should be Marjory's, so Marjory's it hecame. Raye was solaced by the promise of making a purchase for herself.

Getheral has had many beautiful fans since, but never one which gave her such happy memories as Captain Crusoe's feather fan.

CIVIC BEAUTY AND SOCIAL RIGHTEOUSNESS

"Current Literature," which devotes considerable space in its May number to the city and town improvement and the arts and crafts movements, has some sensible words to say on an important subject:

"A month or two ago Mr. Gerald Stanley Lee contributed to the 'AtlanticMonthly' an article, in his mystic and prophetic style, on 'Making the Crowd Beautiful.' Mr. Lee accepts the Crowd; he recognizes that this is a Crowd age, that ours is a Crowd civilization; he yearns for beauty and beautiful thiugs. hut understands that when these appear again they will he in forms of a new and corporate beauty, and as things no longer for individual, but for social appreciation and enjoyment. He has no hope of this new beauty until the Crowd which is to enjoy it, hut which must first create it, itself hecomes beautiful.

"It may not he very profouud—but tben it may be a rather practical and necessary—reflection that the Crowd will not become beautiful until it can live amid decent, not to say beautiful, surroundings. This is to say, at least the progress of inner social beauty, of corporate righteousness, must, and always will, go forward simultaneously with that of external public heauty. Good uien will not long live amid mean, contemptible and squalid surroundings, and, conversely, clean proportioned and nobly adorned cities will not long he populated by ignoble citizens. The beautifying of public scenes will tend toward the beautifying of the puhlic.

"It is for this reason that we see an ethical value in the movement in behalf of town and village improvement—to which several pages of this issue of 'Current Literature' are devoted. Its esthetic value is of course enormous. We are now appreciative of the beautiful; we are even beginning to talk of a national art. When shall we understand that a national art is not a thing which may flourish in drawing-rooms?—that it may not be isolate, nor he got hy patronage?—when shall we perceive that a national art must spring from the people?—that it must be the result of a diffused and popular spirit?—that it will be the product of a race whose every village carpenter and every village hlacksmith may look upon himself as an artist?—that it will be tbe expression of our people's pleasure in their labor?—that it may be expected only when the towns in which men live, the factories in which they labor, the streets they walk, as well as the houses in which they rest, are so designed, so made, so cared for and so adorned that the people may live in contentment and labor with songs."

WITH THE DREAMS

BY FRANK L. STANTON

Gran'pa wuz allers settin' ter hisself an' sayin' things
In the cozy chimney-corner, whar the fire talks an' sings;
An' we'd romp an' romp eroun' him, an' on his knees we'd climb
An' ask him, "What you sayiu' ter tbe fire all the time?"
An' mother'd say, "Go play, now, whar the mornin' sunshine streams—
He's in the chimney-corner, with the dreams!"

We use ter think it funny he could set an' talk all day
Ter the fire—singin'—singin'—allers singin' thataway!
He use ter look so lonesome—a shadder in the light—
A-dreamin' in the daytime, when the dreams wuz made fer night!
But mother'd allers tell us, "So peaceful thar he seems,
Jest leave him in the firelight, with the dreams!"

An' once he called me ter him, an' tuk me on his knee—
"You'll dream jest like I'm dreamin', dear, when you're as ol' as me;
When the snows o' life air fallin', an' the summer's sweetness flown,
An' the voices o' the children air strange echoes o' your own,
Then you'll fin' a lonesome corner whar the firelight sings an' gleams—
A little, lonesome corner, with the dreams!"

An' when, one quiet evenin', in the fire's dyin' light,
The children said, "Wake, gran'pa! we're come to kiss good-night,"
He didn't move or speak ter 'em—his head drooped on his breast,
An' his lips a-smilin' sweetly as a little child's at rest;
We knowed the dreams had called him, an' in the mornin' beams
He'd wake an' smile in heaven—with tbe dreams!

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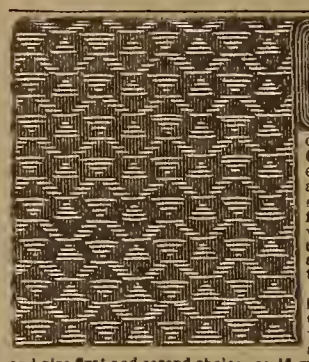

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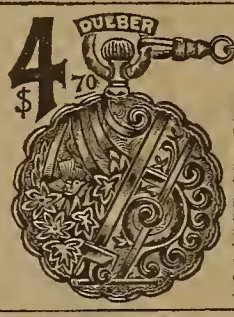

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Write or Call for Current Comments No 39. 716 Main St. Cor. Tupper

Excessive Growth of Hair Stopped

Removed instantaneously by my new, safe remedy. Guaranteed not to injure the skin. Sent on receipt of $1.

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Please mention this paper.

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A Powder for the Feet.
Shake into your Shoes

Allen's Foot-Ease, a powder for the feet. It cures painful, swollen, smarting, nervous feet and instantly takes the sting out of corns and bunions. It's the greatest comfort discovery of the age. Allen's Foot-Ease makes tight-fitting or new shoes feel easy. It is a certain cure for ingrowing nails, sweating, callous and hot, tired, aching feet. We have over 30,000 testimonials. TRY IT TODAY. Sold by all Druggists and Shoe Stores, 25c. Do not accept an imitation. Sent by mail for 25c. in stamps.
FREE TRIAL PACKAGE sent by mail. Address ALLEN S. OLMSTED, Le Roy, N. Y.
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If afflicted with weak eyes, use Thompson's Eye Water

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I have berries, grapes and peaches a year old, fresh as when picked. I used the California Cold Process. Do not heat or seal the fruit, just put it up cold, keeps perfectly fresh, and costs almost nothing. Can put up a bushel in ten minutes. Last year I sold directions to over 120 families in one week; any one will pay a dollar for directions when they see the beautiful samples of fruit. As there are many people poor like myself, I consider it my duty to give my experience to such, and feel confident any one can make one or two hundred dollars around home in a few days. I will mail sample of fruit and full directions to any of your readers for nineteen (19) two-cent stamps, which is only the actual cost of samples, postage, etc.
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intends to establish an Office and distributing depot in each state, and desires Manager for each office. Salary $125 per month. Applicant must furnish reference as to character and have $800 cash. Previous experience not necessary. Give full particulars. Address PRESIDENT, Box 1151, Philadelphia, Pa.

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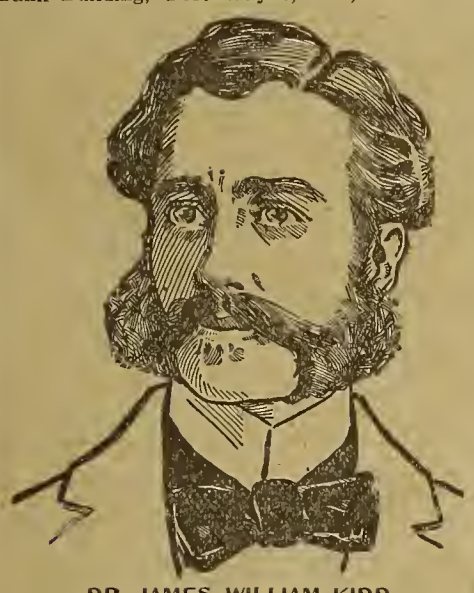
Marvelous Elixir of Life Discovered by Famous Doctor-Scientist that Cures Every Known Ailment.

Wonderful Cures are Effected that Seem Like Miracles Performed—The Secret of Long Life of Olden Times Revived.

The Remedy Is Free to All Who Send Name and Address.

After years of patient study and delving into the dusty record of the past, as well as following modern experiments in the realms of medical science, Dr. James W. Kidd, 122 First National Bank Building, Fort Wayne, Ind., makes the



DR. JAMES WILLIAM KIDD

startling announcement that he has surely discovered the elixir of life. That he is able with the aid of a mysterious compound, known only to himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous. It purifies the entire system, blood and tissue, restores normal nerve power, circulation, and a state of perfect health is produced at once. To the doctor all systems are alike and equally affected by this great "Elixir of Life." Send for the remedy to-day. It is free to every sufferer. State what you want to be cured of and the sure remedy for it will be sent you free by return mail.

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BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

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ELEGY WRITTEN IN A COUNTRY GOLF-LINKS

Beneath these rugged elms, that maple's shade,
Where heaves the turf in many a moldering heap,
Each in his last, eternal bunker laid,
The rude forefathers of the hamlet sleep.

Oft to the harvest did their sickle yield,
Their furrow oft the stubborn glebe has broke—
Ah, but they had no mashies then to wield,
They never learned to use the Vardon stroke.

The poor old souls, they only lived to toil,
To sow and reap and die, at last obscure;
They never with their niblicks tore the soil—
How sad the golfless annals of the poor!

The pomp of power may once have thrilled the souls
Of unenlightened men—to-day it sinks
Beneath the saving grace of eighteen holes!
The paths of glory lead but to the links.

Perhaps in this neglected spot is laid
Some heart that would have quickened to the game;
Hands that the lovely baffy might have swayed,
To Colonel Bogie's everlasting shame.

Full many a hole was passed by them unseen,
Because no fluttering flag was hoisted there;
Full many a smooth and sacred putting-green
They tore up with the plow and didn't care.

Some village Taylor, who, with dauntless breast,
Could wang the flail or swing the heavy maul;
Some mute, inglorious Travis here may rest,
Some Harriman who never lost a ball.

Far from the eager foursome's noble strife
They leveled bunkers and they piled the bay,
Content to go uncaddied all through life,
And never were two up with one to play!

No further seek their hardships to disclose,
Nor stand in wonder at their lack of worth;
Here in these bunkers let their dust repose—
They didn't know St. Andrews was on earth!

—S. E. Kiser, in Golf.

AN UNFORTUNATE STATEMENT

A PROFESSOR at Oxford was giving his pupils a lecture on "Scotland and the Scots."

"These hardy men," he said, "think nothing about swimming across the Tay three times every morning before breakfast."

Suddenly a loud hurst of laughter came from the center of the hall, and the professor, amazed at the idea of any one daring to interrupt him in the middle of his lecture, angrily asked the offender what he meant by such conduct.

"I was just thinking, sir," replied that individual, "that the poor Scotch chaps would find themselves on the wrong side for their clothes when they landed."—London Answers.

VERY OBSERVANT

As has been said before, Charles is a very observing boy. Yesterday one of mama's friends came to the house to call. Mama was out and Charles opened the door. "Mama is not home," he said.

"Will you please give her my card when she comes?" inquired the caller.

"Yeth, ma'am," said Charles.

The caller opened her card-case, and as she withdrew the engraved pasteboard a bit of tissue-paper fluttered down onto the steps. Very grandly Charles picked it up and handed it to her, saying, "You dropped one of your cigarette-papers."—Albany Journal.

BRINGING HER OUT

Dashaway—"The only trouble with that St. Louis girl is that she doesn't know how to talk."

Cleverton—"She doesn't, eh? Well, you take her out on the links some day to play golf, and wait until you have a difficult putt to make."—Harper's Bazar.

NOT CERTAIN ABOUT IT

"Mama, will heaven be as beautiful as they say in the books?"

"Certainly, my dear; why do you ask?"

"Places we go to in the summer are never as nice as the circulars say."—Life.

HE KNEW

Little Lemuel (who has stumbled over an unaccustomed word in his reading)—"Uncle Jotham, what is a subsidy?"

Farmer Flintlock—"It's the money that the gov'ment gives ye if you are rich."—Judge.

FAITH IN HER WAYS

"Cousin Dorothy's train gets in at 5:30."

"Well, I'll be at the station at 6:30."

"6:30?"

"Yes; Dorothy is always an hour late, whatever she does."—Life.

WHY THE GHOST VANISHED

Some years ago, when Bishop Creighton was bishop of Peterborough, he was the guest, during a confirmation tour in the diocese, at an old manor-house, and slept one night in a room supposed to be haunted. Next morning at breakfast he was asked whether he had seen the ghost.

"Yes," he replied, with great solemnity; "but I have laid the spirit. It will never trouble you again."

Being further questioned upon the subject, the bishop said, "The ghost instantly vanished when I asked for a subscription toward the restoration of Peterborough cathedral."—New York Tribune.

AN ADDITION TO THE FAMILY

Some of the ancestral societies have done remarkable things in New York in the science of forestry of genealogical trees. I am reminded of a man whom I met on the street some time ago whose beaming face told me that something unusual had happened. I asked him the cause of his joy, and he replied, proudly, "I have just had an addition to my family." I congratulated him and solicitously inquired if it was a boy or girl.

"Neither," he replied. "A grandfather!"—Reverend Henry A. Van Dyke, in Judge.

QUITE ANOTHER MATTER

Aarons—"Did you hear dot latest about Finkelstein?"

Jacobs—"No. Vat vas it?"

Aarons—"Vy, he gave twendy-five tousand dollars last Friday to dot leedle poy vat vas run over mit dem sthreet-car."

Jacobs—"Is Finkelstein gone grazy already? Vot ails him dot he do such a ding?"

Aarons—"Oh, he vas on der jury!"—Life.

NEW NAME FOR IT

"I'm trying to get some information about a friend of mine named Fox, who came out here," said the stranger from the East. "They tell me he died of some throat trouble."

"I guess that's about right," replied the cow-boy. "What was it—bronchitis?"

"Bronkitis? That's a new one on me, but I reckon I see the connection. He stole a bronco."—Philadelphia Press.

NOMENCLATURE

As the animals passed, Adam called them each by name, until there came the Ichthyosaurus.

"Your face is familiar, but your name escapes me," quoth our common parent, hereupon.

Of course, there is much in this to suggest that Adam had not the ready command of Latin which was essential to the proper discharge of his responsibilities.—Puck.

DIPLOMACY

"Mama, I wish you'd let cook put up my lunch instead of doin' it yourself."

"It's no trouble, my dear."

"I know."

"Then why—"

"'Cause she's got a better appetite than you, an' she puts more in."—Moonshine.

PAYMENT IN FULL

Isaacs—"You pet I haf some old scores to pay off to Rosenstein!"

Cohenstein—"I chudge you ain'dt going to ask him to take feefty cents on der tollar."—Puck.

EXPLAINING THINGS

"What is this here diplomacy?" asked the grocery loafer.

"It is like this here," said the grocer. "Fer instance, if I wanted to call you a liar, I'd jist do so right out; but if I wanted to be diplomacy, I'd go at it sorter roundabout an' jist say to the surrounding air that while I wasn't namin' no names I reely did believe that a certain red-nosed, squint-eyed cuss that had et at least ten pound of my best cheese without ever payin' a cent was not so keerful with the truth as he orter be. See?"—Indianapolis Press.

Prevention of Disease

KEEP THE STOMACH RIGHT

It is surprising what a safeguard a healthy stomach is against disease. And again it is not so surprising when it is remembered that the only way we get pure blood, strong nerves and firm flesh is from wholesome food, *well digested.* It is the half-digested food that causes the mischief. When the stomach is weak, slow, inactive, the food lies in the stomach for hours, fermenting, forming gases which poison the blood and the whole system, causing headache, pains in the back, shoulder-blades and chest, loss of appetite, palpitation, biliousness.

The safest cure for indigestion is Stuart's Dyspepsia Tablets, composed of vegetable essences, fruit salts, pure pepsin and Golden Seal. Dissolve one or two of these tablets in the mouth after each meal. They are pleasant-tasting, and mingling with the food so assist the weak stomach that the food is perfectly digested before it *has time to ferment.*

Stuart's Dyspepsia Tablets cure indigestion and increase flesh because they digest flesh-forming foods like meat, eggs, etc.

Sold by druggists at 50 cents per package. Absolutely safe and harmless.

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Summer Trip

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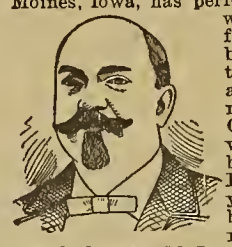

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W. O. COFFEE, M. D., 819 Good Block, Des Moines, Ia.

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I have been selling perfumes for the past six months. I make them myself at home and sell to friends and neighbors. Have made $710.00. Every one buys a bottle. For 50 cents' worth of material I make Perfume that would cost $2.00 in drug-stores.

I first made it for my own use only, but the curiosity of friends as to where I procured such exquisite odors, prompted me to sell it. I clear from $25.00 to $35.00 per week. I do not canvass, people come and send to me for the perfumes. Any intelligent person can do as well as I do. For 42 cents in stamps I will send you the formula for making all kinds of perfumes and a sample bottle prepaid. I will also help you get started in the business. MARTHA FRANCIS, 11 South Vandeventer Avenue, St. Louis, Mo.

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How to reduce it

Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. three years ago, and I have not gained an ounce since." Purely vegetable, and harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc.

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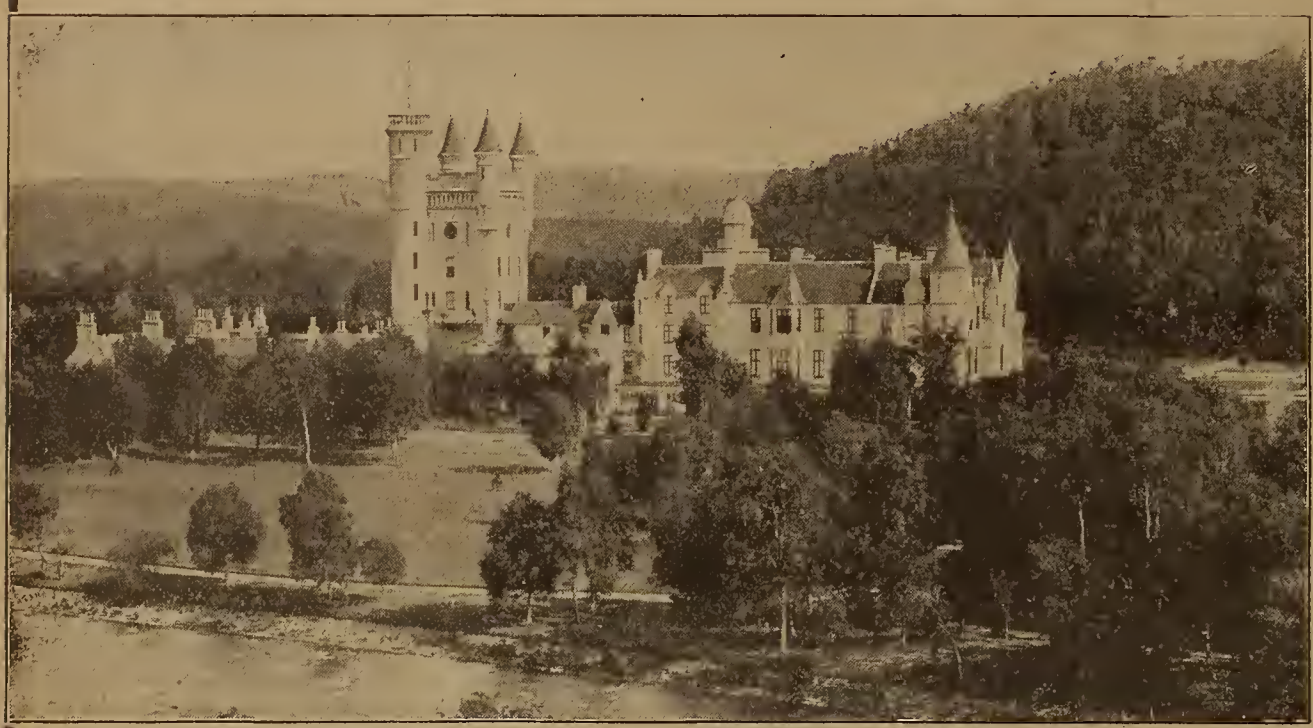

BALMORAL CASTLE, ON RIVER DEE, ABERDEENSHIRE, SCOTLAND
One of the pictures on page 126

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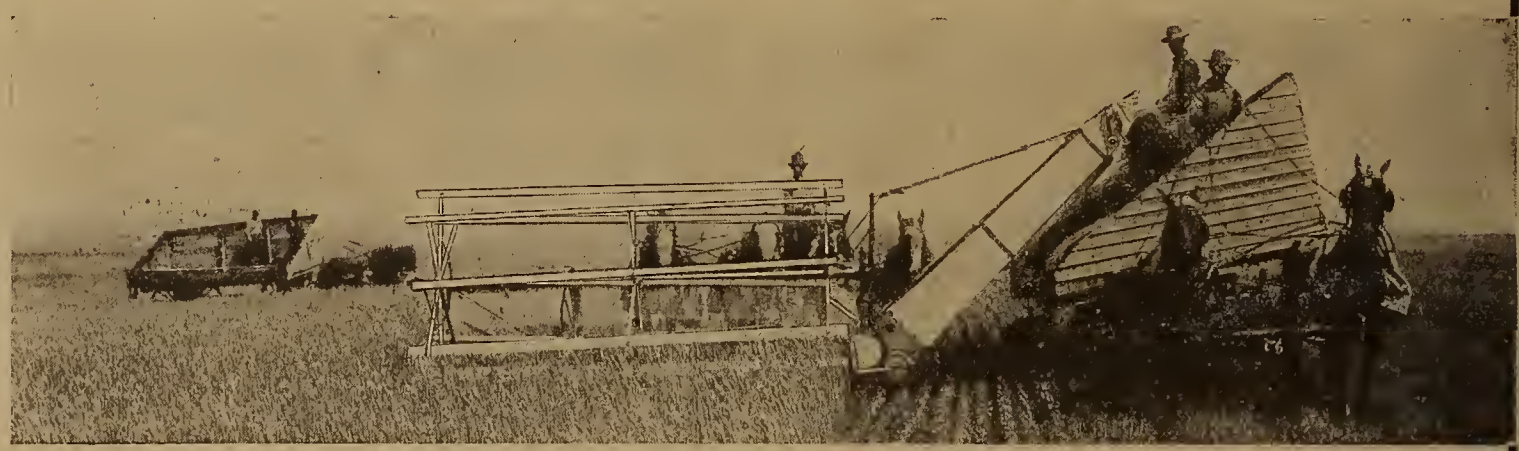

HEADER IN A DAKOTA WHEAT-FIELD—CUTS WIDTH OF TWELVE FEET, THIRTY ACRES A DAY
One of the pictures on page 94

BIGGEST ATLAS BARGAIN IN THE HISTORY OF THE WORLD

CENTRAL VIEW SOLDIERS' HOME, DAYTON, OHIO, SHOWING NEW BARRACKS COMPLETED 1901
One of the pictures on page 83. Taken especially for this atlas

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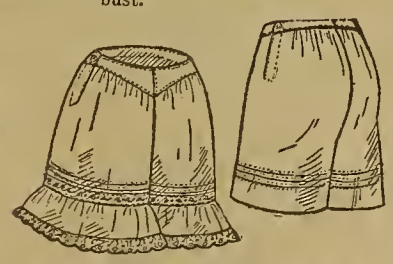

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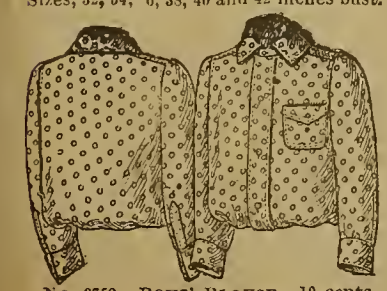

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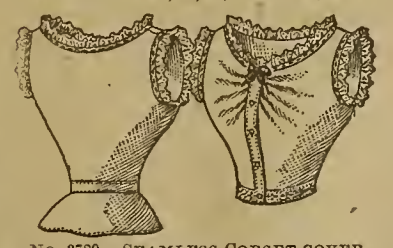

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FARM SELECTIONS

IMPROVED SILOS

SILO-BUILDING in New York state may now be set down as a sort of a rage. It is estimated that the number of silos was doubled in the past year in the state, and the institute that did not have its corn-silo talk was an exceedingly rare exception. The drought of last year showed the value of silage as never before, and how to build and fill was the one great question. It is hard to say just what is the present status of the round and square silo. The men with a good square or eight-square silo with rounded corners are satisfied that they have the best; but there is some complaint about the stave silos, hoops growing longer in the heat of summer, and staves shrinking and warping and not quite matching again, some getting shaky and falling down, and others filling to the letter the wants and expectations of their owners.

All are admitting, as never before, the necessity of having the silo absolutely air-proof on sides and bottom, and to get this the stave silo must be carefully built and kept from shrinking out in dry weather. To our mind the best round silo we saw was of a new pattern—round and with wooden hoops. These hoops were made by springing five eight-inch and six-inch elm boards into a hoop the size of the silo wanted, and lapping joints until the hoop was made up of four thicknesses of these boards, well nailed, with the splicing well lapped. The nine hoops were elevated on a frame to their respective places, and the outside cover was put on, backing it with heavy building-paper. The silo was then lined up inside with very narrow two-and-three-fourths-inch Georgia pine flooring. The paper was expected to spring away from the outsiding, and thus really form a double air-space. It would be impossible for the hoops to expand or contract, and the lining would be as perfectly kept in place as on the walls of the square silo, for it is a peculiarity of Georgia pine to shrink and swell very little, if any, on a silo wall.

It was the experience of these men that not only were these hoops cheaper than iron ones, but they did not give or contract, and the inside ceiling was always as tight as when built, and the firm nailing of inside and outside walls made them rigid and stable and impossible to rack or warp out of shape, as the iron-hooped silo is so liable to do without constant attention in the summer. Thoroughly protected from the weather the hoops would be very lasting, and it looks to a fellow up a tree as if this wooden hoop might be a hint of a coming solution of the tub or stave silo problem.—John Gould, in Hoard's Dairyman.

REAPER TRIAL

The Clark County Agricultural Society has decided to hold a Reaper Trial this harvest, near Springfield, Ohio, open to the world competitively. There will be a jury of very competent men to judge, and the awards will be made public at the time of holding the county fair in August next.

In 1852, near Springfield, was held the first important field trial of reaping-machines in the United States. At that time all reaping-machines were very crude; their makers, however, did the best they could. Other reaping field trials followed as a result of the interest created by this field trial, and created great interest and enthusiasm not only among the farmers, but among the manufacturers of reaping-machines generally, and spurred them to better efforts, each striving to produce a better machine than his competitors. The improved reaping-machines of to-day are largely the result of the competitive interest aroused by these early field trials. From present indications all the principal machines now manufactured will be in competition.

C. W. Minich and J. E. Lowry are members of the special committee on arrangements for the field trial.

CATALOGUES RECEIVED

John W. Moorehouse, Secretary, Albion, Ohio. Report and premium-list of the Noble County Horticultural Society. Strawberry meeting, June 13th; midsummer meeting, August 8th; autumnal meeting, October 10, 1901.

Smalley Manufacturing Co., Manitowoc, Wis. Illustrated catalogue of ensilage and fodder cutters, wood-saw machines, feed-mills, corn-shellers, root-cutters, powers for the farm, plows, etc. Free booklets—"Farming on Business Principles" and "Yankee Silo Sense, the American Verdict on Ensilage and Dry-fodder Cutting."

LIFE INSURANCE FOR FARMERS

The extension of the business of insurance against loss, or partial loss, is wonderful even in this day of remarkable business enterprise. There is insurance of every sort, from the old and legitimate fire insurance to the so-called insurance schemes that are only lotteries pure and simple. The gambling instinct is strong in the human race, and most people would like to risk some money on a reasonably "sure thing" if they did not regard it as morally wrong, and very many would risk it anyway if they thought that it was "sure."

In fire insurance the chance taken is legitimate. One who is not able to carry the risk of loss by fire transfers that risk to a company that is able to bear the loss, paying a certain sum for the privilege. He does not want a fire if he is honest, and does not have to have one to win out.

Straight life insurance, in which a man pays each year the cost of carrying his risk, is defensible on the same ground. If he owes support to others, and has not sufficient property to meet such demands in case of death, he cannot in fairness carry out the risk of loss to them by his death.

Endowment insurance is less defensible. In it there is the expectation of getting some unearned money from people less fortunate than one's self. A large percentage of people lack either tenacity of purpose or financial ability to stick to any business enterprise for a long term of years, and as payments on endowment insurance are necessarily relatively large, forfeitures of policies became for a time a source of tremendous income to companies. Competition led to the issuance of so-called non-forfeitable policies, but some income still remains from such policies, and this money of unfortunates is one factor in making the terms of such companies attractive.

Endowment insurance, based wholly upon a combination of the principles underlying straight life insurance and those of the savings-bank, is a good thing for those who do not have opportunity for the safe investment of small sums of money, and who need a whip over them to cause them to live as economical as they should. This applies to very many people working for wages. Needing actual life insurance, means of investment of small sums and unusual incentive to save such sums from their yearly income, endowment insurance in a conservative company accomplishes the end.

The average farmer is differently situated. If he lacks sufficient capital to insure the support of dependent ones in case of his death straight life insurance is needed, just as fire insurance is needed. But he has means of investment of all his savings, and being a farmer his investments can be made safer than those of any great company, and by habit he is not given to extravagance. Most farms need improvements, and it seems very unwise to intrust the saving of money to great companies over whose investments one has no control so long as more land, better buildings, more underdrainage or better live stock is needed.

INGERSOLL'S TRIBUTE TO GRASS

Grass is the forgiveness of nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, and carnage is forgotten. Streets abandoned by traffic become grass-grown like rural lanes and become obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality, and emerges upon the first solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements, it softens the rude outline of the world. Its tenacious fibers hold the earth in its place and prevent its soluble compounds from washing into the wasting sea. It invades the solitude of deserts, climbs the inaccessible slopes and forbidding pinnacles of mountains, modifies climates and determines the history, character and destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfare and field it bides its time to return, and when vigilance has relaxed or the dynasty has perished it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, and yet should its harvest fail for a single year famine would depopulate the world.

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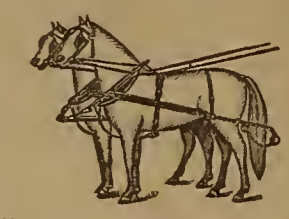
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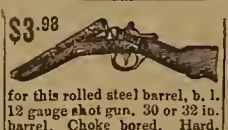
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The Most Productive Sugar Plantation in the World

BY JESSIE ACKERMANN

LIKE a great emerald in a crystal sea is the sun-kissed Isle of Oahu, upon which is the most productive sugar plantation in the world. The go-ahead spirit of late years has made it possible to reach this fertile spot with all the ease and comfort of modern train-travel, and also afford the traveler a feast of beauty in the matchless grandeur of scenery through which the road passes.

There is always a rare fascination about tropical climes, possibly because the poet, in song and story, has devoted gift and genius in awakening a desire to behold the scenes a living reality; but the sweetest song ever set to the most heavenly strains has never fully told the story of the blue sky, rolling hills, rugged mountains, sweeping surf and drooping palms that crown the Hawaiian landscape with indescribable glory.

Thirty miles from Honolulu, stretching away up the mountain slopes, two hundred feet above the level of the rushing sea, bathed in almost perpetual sunshine, nine thousand acres of fertile land have been hedged into an inclosure, and under the name of Eva Plantation is known in the business world as earth's most productive spot. A better investment of time was never made than half a day devoted to a trip to the plantation in an investigation of the causes of its marvelous productivity.

Ten years ago an enterprising stock company secured a lease of this tract of land from the son of a missionary for the term of fifty years, and immediately set about by all the devices known to human skill to gather from it the greatest harvest the soil could produce.

At the present time over six thousand acres are under sugar-cane cultivation, the remaining tract being devoted to pasture-land, bananas, vegetables and rice.

The process of growing the cane and making the sugar is very like that upon other plantations, the mode only varying by the use of the most modern appliances. These devices have so increased the productive possibilities of the soil as to gather a larger harvest than from any other place devoted to a similar purpose.

The average output of sugar to the acre is eleven tons—most remarkable! In Louisiana the average is but one and one half tons of sugar, and that, too, where the question is not "How will we water the land, but how will we keep the water off the land?"

The machinery of the South may not be quite equal to that in use in the Islands, but the negro, born to plant, has solved the labor question, and the possibility of an unharvested crop rotting upon the ground or parching in the sunshine is not a factor in the Louisiana industry; and yet with the advantages of natural water supply and no labor problem to imperil harvest the yield is only a small fraction of that of the Island plantation.

In Cuba a planter is well satisfied and finds no fault with Mother Earth if the summing up puts to his credit the profits of a yield of three tons to the acre, and likewise in the north of Africa.

The fullest possibility of the land has just been demonstrated in the results of the highest cultivation of thirty-seven acres of Eva Plantation. When harvested the sugar output was the hitherto unknown amount of fourteen and nine tenths tons to the acre.

The heavy yield of the plantation is said to be due to two conditions besides the very highest degree of cultivation—good water supply and perfection of climate.

As the annual rainfall is small, not exceeding twenty-five inches, which is far from sufficient, it was necessary to introduce a system of artificial water supply. Next to climate there is nothing so conducive to abundant harvest as free use of water. For this purpose the plantation has been dotted with artesian wells, fifty-one in number. With these in full operation, and six pumping plants carrying the water from thirty-two feet above sea-level to the height of two hundred feet, there is a continuous flow of sixty million gallons every twenty-four hours. This amount is almost beyond grasp, but it gives us some idea when we recall that the quantity of water daily consumed in the city of San Francisco, with its population of three hundred and fifty thousand and its numerous factories, scarcely reaches that amount. With such almost unlimited water supply the very desert could be made to "bloom like the rose," yet water alone would fail in results.

The climate! It is said the people eat the climate here. There is no doubt but the winter climate is as fine as any spot on earth; the summer, however, is very trying. Any form of vegetable life that refuses to grow in this clime has no right to life. The night's heavy dews and rains and the continued sunshine, rising with refreshing rays and gradually increasing its life-giving force until noon, and declining as gently, leaving the evenings pleasant and the nights cool, are all that could be desired. A plant that would refuse to lift its head to the Eastern light and stretch an inch or two, that it might overtop its neighbor, after the nightly bath of dew or mist, should blush to try to live.

These climatic conditions make it possible for the cane to fully mature, reaching the perfection of harvesting condition after a growth of about eighteen months, when the stalks have reached the height of about ten feet and are fully two and one half inches in diameter. Any time of the year planting may be done. At the same season some portions of the plantation are being plowed; near by other tracts are being planted, while in full sight the waving tassels tell of the harvest-time at hand, when the silvery heads must go down before "man's desire."

THE EVA PLANTATION, HAWAIIAN ISLANDS

There is no scene of natural beauty that compares with the view of a cane-field by moonlight. From the top of the mill away in all directions stand these hardy stalks like monarchs of the field. The glinting rays of a full moon fall like so much sifted silver as the plumes gently nod in the evening breeze. As harvesting and planting continue through the entire year the harvest is endless; but this plan could be carried on only in a climate of perpetual summer.

In addition to natural advantages, the cultivation is carried on upon an extensive scale with much vigor and great care. Seventy-five thousand dollars go annually to increase the richness of the soil, by adding various kinds of fertilizers imported from other islands. Instead of running a light plow over the surface and turning the soil to the depth of a few inches, as is usual, great furrows are rolled up thirty inches deep and fertilized with lavish hand. It is by no means a case of "tickle the ground with a hoe and it will smile back a harvest," but great labor is expended in preparing the soil before planting takes place.

The machinery used about the place is endless in quantity and so gigantic that figures would fail to give any idea. For working the vast area thirty-five miles of railroad stretch in all directions through the fields. Over this three hundred and fifty cars and five locomotives are constantly running, to carry the cane from the field to the great mill that grinds day and night, reducing daily twelve hundred tons of cane to one hundred and fifty tons of brown sugar. In this state it is sent to California and returned to the people of the island at a higher price than it can be bought in the market at San Francisco. Not a pound of native sugar can be purchased in the islands at any price. It is all sent in great sacks from the mill direct to the mainland, to be put through the refining process.

The latest mechanical device used upon the plantation is machinery for the unloading of the cars. Many of these are pulled by mules under a long shed, and lined up on each side of a moving platform. From the ceiling is suspended an arrangement consisting of rafters, over which runs an endless chain. The upper part of the chain is thick with heavy spikes. In revolving these strike the trucks piled with cane, removing the long, heavy stalks from the car to the moving platform, which creeps slowly up an incline and deposits them before a succession of heavy rollers, where the last drop of juice is pressed out, leaving the refuse as dry as a bone. The refuse is conveyed automatically to the boilers, furnishing fuel with which to run the machinery of the entire plantation.

Upon many plantations, after three grades of sugar have been made, there is still value in the residual syrup, commonly called "truck." The last process is to convert the remaining fragments of sugar into a kind of poor rum that is very intoxicating and works great harm to those who drink it. Here, instead of extracting thousands of dollars' worth of life-destroying liquor from the refuse, it is promptly consigned to less destructive flames.

When each day's work has been summed up one hundred and fifty tons of sugar are the result. At the close of each month this nets the stock-holders the neat sum of fifty thousand dollars.

If the cane crushed each day had been placed on wagons, as farmers usually carry their hay to the barns, it would mean a

[CONCLUDED ON PAGE 5 OF THIS ISSUE]

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL & KIRKPATRICK CO.

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The Advertisers in This Paper

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

WITH THE VANGUARD

THE power of water applied by man to bring forth products from the soil is strikingly presented in the interesting special in this number describing the most productive sugar plantation in the world.

The power of water directed by man through electrical appliances to develop and transform the industries and utilities of an empire is presented in the following article from the San Francisco "Argonaut:"

"That Benjamin Franklin vaguely realized the tremendous possibilities of that subtle electric force, a spark of which he had drawn from the clouds, was shown in his wish, often repeated in his old age, that he might have been permitted to live two hundred years to witness the development of electrical appliances. A century and a quarter would have amply covered the period of his desires, and California would suffice for the scene of demonstration. On the banks of the Mokelumne River, near Jackson, in Amador County, has been built a monster plant in which electricity is generated by water-power, and the possibility of transmitting a current of high voltage to San Jose, one hundred and eighty-four miles away, has been tested. A little company gathered in the electric substation in the latter city to watch the test. The lights being put out, and connections made, a telephone message was sent to the superintendent in Amador County, and in a few minutes back came the current with a force of sixty thousand volts.

"The incident means that the Coast has harnessed a power sufficient for lighting, street-cars and factories, which makes or will make the cities practically independent of either coal or fuel oil. While this is the greatest transmission of electric power in point of distance, it is not the only demonstration of the value of California's mountain streams as a factor in the development and progress of the state. In the south a current of high voltage is sent eighty-three miles to the city of Redlands, and in Oakland a similar one is delivered one hundred and forty miles from the power-house on the South Yuba River. With experiments already made, practically assuring the transmission of electric power at least two hundred miles, what possibilities are opened up for the whole state, along the eastern border of which lies the Sierra Nevada—a vast reservoir of water-power now running waste—while every city, town and hamlet in the state is within a distance proved to be available for its use. The water, slipping from the hills, can, by the aid of electricity, light every town and drive every engine and turn every wheel in all the mills, forges, looms and factories of the state, present or to come. What has been done in other towns can be done in San Francisco. When it is done, and the cities telephone to the mountains and the response is a volume of electric power, releasing enterprise from the thraldom of expensive fuel, a problem will have been solved, and its solution should make California hum with the whir of busy wheels."

IN DELIVERING the opinion of the Supreme Court in the "Downes" insular tariff case Justice Brown said:

"We are also of opinion that power to acquire territory by treaty implies not only the power to govern such territory, but to prescribe upon what terms the United States will receive its inhabitants, and what their status shall be in what Chief Justice Marshall termed the 'American Empire.' There seems to be no middle ground between this position and the doctrine that if their inhabitants do not become, immediately upon annexation, citizens of the United States, their children thereafter born, whether savages or civilized, are such, and entitled to all the rights, privileges and immunities of citizens. If such be their status, the consequences will be extremely serious. Indeed, it is doubtful if Congress would ever assent to the annexation of territory upon the condition that its inhabitants, however foreign they may be to our habits, traditions and modes of life, shall become at once citizens of the United States. In all its treaties hitherto the treaty-making power has made special provision for this subject."

Explaining the questions decided by the Supreme Court Senator Foraker, in a press interview, said:

"In order that the decision may be fully understood it is necessary to bear in mind that Porto Rico has passed through three distinct periods that have relation to these cases. In the first place, prior to the Spanish-American war Porto Rico was a province of Spain, and as such foreign territory in every sense of the word. The island remained foreign territory in a legal sense, notwithstanding our conquest and military occupation and government, until the ratification of the treaty of peace, when it ceased to be foreign territory, and became a possession or dependency of the United States, but not a part of the United States. Being a dependency of this country, it was domestic territory, as contradistinguished from foreign territory. It is domestic territory still, but it underwent a further change in its legal relation to this country when Congress enacted the law of April 12, 1900, providing a civil government and tariff duties for the support of the same. Since April 12, 1900, it is territory belonging to the United States, with respect of which Congress has enacted legislation fixing the status of its inhabitants, providing a government for them and providing also for the necessary revenues to support the same. Between the ratification of the treaty of peace and this legislation of April 12, 1900, it was territory of the United States, with respect of which Congress had not exercised any power whatever by legislation or otherwise.

"What the court decided was that while we were occupying Porto Rico, prior to the ratification of the treaty of peace, it was foreign territory, and our occupation and government was military, and all that was done was in the nature of a military necessity, and valid on that account; that from and after the ratification of the treaty of peace it was no longer foreign, but domestic territory within the meaning of our tariff law, according to which tariff duties can be collected only on importations from foreign countries, and that consequently the duties collected on imports from Porto Rico after the ratification of the treaty of peace and prior to April 12, 1900, when Congress first legislated, were illegally collected—illegally collected, however, not because Congress was without constitutional power to impose such duties on importations from Porto Rico, but because during that period Congress had not so legislated.

"The third proposition decided by the court, and the one of supreme importance, was that Porto Rico, 'being a territory of the United States,' is not a part of the United States, but only territory belonging to the United States, and that it is, therefore, within the constitutional power of Congress to so legislate with respect to it, including the imposition of tariff duties as it may see fit, and the Congress having so legislated on the twelfth day of April, 1900, the provisions of that law are valid and to be upheld and enforced; in other words, the effect of the decision is that the Constitution does not follow the flag, and that Congress has plenary power under the Constitution to govern our insular acquisitions according to their respective necessities. The Supreme Court goes even further, and says that if there were no constitutional provisions investing Congress with this power, it would yet, nevertheless, ex necessitate have this power, since the states, acting in their statal capacity, could not provide the necessary legislation, and political sovereignty can be exercised only by the political department of the government."

Commenting on the decisions the New York "Sun" says:

"The several cases turned on different questions of fact and of law, and at first sight the homogeneity of the decisions was not apparent. The fundamental principle was reached in the opinion on the cases directly involving the constitutionality of the Porto Rican tariff act. In upholding that law, and in affirming the power of Congress to legislate for Porto Rico regardless of the limitations of the Constitution that are applicable to the states of the Union, the court put an end forever to the old Calhoun doctrine recently invoked by the opponents of national expansion.

"The Constitution does not extend itself by its own force into all territory acquired and held by this government.

"The Constitution does not follow the flag until such time as Congress sends the Constitution after the flag.

"Territory may be a part of the United States in the geographical sense without being an integral part of the United States in a constitutional sense.

"The area covered by the flag of the United States may consist of states, organized territories on the way to statehood, and other territory subject to the jurisdiction of the United States.

"Citizenship in American possessions is not necessarily citizenship of the United States.

"Notwithstanding constitutional requirements as to uniformity of legislation, Congress can legislate for different territories according to their varying conditions and requirements."

THE ON-LOOKER

STANDING at the window in a railway-station of a Northern city many years ago, I was watching the occupants of a carriage just arriving. A father, mother and daughter evidently were leaving home for a time. The head of the family bid his coachman good-by, while the young lady gave the horses some caresses. It was a very pretty picture, and I was enjoying it, when a bystander observed, "Ah, there is an aristocrat!" As a farmer's boy I had read of people set apart from the masses by wealth and supposed culture, but actual realization of their existence had not come with the reading. In my home neighborhood all honest, industrious, well-behaved people were supposed to be as good as any one else. 'Tis true we let education furnish a sort of rating, and the more scholarly folk were valued for their attainments, but the thought of any gulf between ourselves and a "higher class" was not a vivid one. "Aristocrats" were no more real in our country life than kaisers and czars. The sudden realization of class distinction was unpleasant to my untutored spirit, and my heart was none the better for the incident.

But why do we Americans halt and stammer over the word "classes?" Is it not that we are confused in our thinking? There is a striving to maintain recognition of equality among the citizens of our republic, associating the idea of equality with freedom, when in the nature of things there is no such thing as equality in a mass of humanity, nor is political freedom dependent for existence upon any assumption that equality does exist. Freedom results from a recognition by all of the rights of all, and equality is not a factor in the arrangement.

Just so long as we belong to the animal kingdom, and are endowed by parents with personal characteristics, and are influenced by the environment of our childhood, youth and manhood, human beings will vary in physical, intellectual and moral qualities; and with such variation comes inequality. Our abilities, our limitations, our opportunities, our tastes, our habit of thought, our occupations, serve to throw us into classes, and no political sophistry can change the fact. But why should we want the fact other than it is? Is it through fear that we may not be thought "as good as anybody else" if a distinction is admitted? However, the distinction exists, and it is based upon differences between human beings, and it is only conscious weakness that exclaims against the recognition.

Whiling away an hour in a Maryland courtroom during a wait for a train, I listened to a judicial inquiry into the mental condition of a man before his commitment to an asylum. The unfortunate gentleman heard two physicians testify that his mind was not sound, and an attendant deposed that he was erratic in his habits. Before the decision was given the judge asked the man whether he had anything to say in his own behalf, and his only reply was, "It is needless for me to make any statement, but I do wish to say that I am utterly unable to understand how one man can decide whether another man is crazy or not." Who could rightfully vouch for the sanity, the competency, of the alleged expert? By what right was his standard of sanity imposed upon the prisoner, who had a different one?

What is the fundamental cause of popular disapproval of the idea of classes in this country? It is due to an incorrect habit of thought, and is found in our disposition to accept the ideals of more influential classes for measurement of our own accomplishments, and by these we are found deficient. What right has any class to decide upon the sanity of any other class? In our own we have certain aims and ambitions. The fact that they do not appeal to members of another class does not derogate one particle from their own worthiness.

I am a farmer. Mastery of nature's laws, knowledge of the soil, of plant life, of animals, freedom to control some land, independence—all appeal to me as infinitely higher and more worthy than the life-work of a lawyer, a dealer in muslins or leather, or a juggler of railway stocks. But that judgment is by my own standard, and not by those of lawyers, merchants and millionaire manipulators of corporations. Each of these classes has its ideals of successful living. My life-work cannot develop the cunning mind of the lawyer or of the Wall Street broker or the cunning hand of the artist. There is lack of equality between us. Agriculture does help to develop some qualities of manhood that seem valuable to us. It is a pleasant thought that these qualities seem valuable to many people, but this is a very minor matter. The important matter is that they display value to us when using our own standards of measurement which we have adopted as the right ones for our work, our progress, ourselves.

If there was only one standard for comparison of all classes of people, the ones in the highest class would not object to classification. If all of us were sane enough to be loyal to our own ideals of worth and duty, we should not fear it, either, and our pride would be a helpful thing. We fall into classes in this world, and there is inequality. Purposes and accomplishments differ, and very dissimilar classes may be "as good as" each other. That depends upon the standard of goodness.

My reader says, "Oh, but most people accept culture as a means of measurement." Yes, but of what kind? Culture of the hand and eye that brings an honest living may seem better than culture of the head and absence of a good heart. Culture of the heart does not necessarily involve an intricate knowledge of fashion-plates. No, there is no universal yard-stick, and even wealth cannot procure the adoption of one.

Some people are better than others, according to our own standards. They outclass us. Self-assertion cannot help us. For one, I bow to them. We are not all equal in this country, and never will be.

O—L.

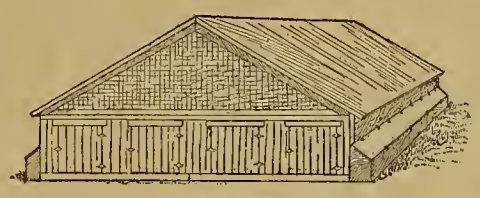
ABOUT RURAL AFFAIRS

From the Pan-American My last visit on the grounds, then far from being completed or in best show order, May 15th, was another revelation to me. I had not been there for two weeks; but what a lot of work can be doue even in so brief a span of time when push, energy and money are behind it, and with plenty of willing hands (willing because well paid) keeping at it day and night. I had the good fortune to fall in with my good friend Van Deman, ex-United States pomologist, who is connected with the horticultural exhibit, and had just come back from Florida with a lot of cocoanut-trees, some of them quite large, and other palms and ferns; also a collection of pineapples in full growth, bananas, orchids, and all sorts of wild growth of a tropical nature found in southern Florida. Together we strolled through the grounds and admired the wonderful display of tulips and pansies, the flowers then most in evidence on the grounds. I have been somewhat solicitous concerning my references to the Exposition, lest I might be found guilty of overdrawing or overstating facts, and I asked friend Van Deman, "Are there words enough at the command of any ordinary man to do justice to the beauties of this show?" The answer was an emphatic "No." "Is it possible for anybody," I asked again, "to exaggerate in describing the attractions of the Pan-American?" Again came the answer, "No!" "Have you, who have seen a number of world's fairs, ever seen anything to even approach this show?" was the next question. And the answer again was the same decided "No!" "Wonderful! wonderful!" that is the expression most commonly heard and used by those who visit the grounds, as they are getting near completion, for the first time. Even at the time of my conversation with Van Deman I had not yet seen the blaze of light in the illumination at night. But what a sight that is! Beyond description! There stands that electric tower, almost four hundred feet high, studded with forty thousand electric-lights, glowing and glimmering like so many diamonds bedecking the entire surface of the immense structure. And then the effects of all this sea of light upon the rushing waters and cascades, and the beautiful colors of the buildings—what else can the visitor say but "wonderful?" All earlier conceptions of the land of the fairies are here put in the shade.

Floral Displays What a display can be made with even one kind of flower was shown in the hyacinth, tulip and pansy beds. Unfortunately the period of flowering in bulbous plants is extremely short, yet we must have them, nevertheless. In the mammoth tulip-beds, of many thousand flowers each, bright colors of some taller varieties in the center, surrounded by rings of white, yellow, etc., tulips of all classes and all colors, the P. R. Pierson Co., of New York, have given us an object-lesson in the use of this class of flowering bulbs for gorgeousness and magnificence in display, and called forth the same expression, "wonderful!" from admiring groups of visitors right along. In our private grounds we have to be more moderate in the use of these flowers, although tulip-bulbs are comparatively cheap and more easily propagated even by the private grower. Yet I have some good beds of my own, and see others on a grander scale on the grounds of some neighbors, and these beds never fail to attract the eyes of admiring passers-by. A large bed of a single variety—may this be a bright red or other gay color or a chaste, pure white or cream—adds a great charm to the ground during the few days or weeks of bloom. We should not forget, however, that it is the mass of bloom together, the numbers and close planting which give the striking effect. We don't want to see bare ground or empty spaces. The planters on the Exposition grounds have understood that perfectly, and in all those masses of tulips you will have to look sharp to see a vacancy or a spot that makes the impression of thinness and insufficiency. Four to six inches is the distance at which tulip-bulbs should be planted apart.

The Pansy Display Mr. Van Deman accompanied me to one of William Scott's great pansy-beds. This is near the Scenic Railway, and in itself is another "wonderful" display. The pansy is a favorite and one of the most thankful of bedding-plants if used with the same liberality and discretion as in this instance. How many thousands of plants there are in this bed I have not the least idea, although I might have figured it out pretty closely had I taken the pains to get the dimensions of this mammoth bed. The average distance at which the plants are set is about four inches, and this close planting, with fine, large plants, and well-enriched soil and careful watering, insures a striking display from the very start. The center of the oval bed consists of one grand mass of thousands of plants of some shade of purple, surrounded by rings of white, red or blue, yellow, etc., and the whole edged with hardy primulas. It is one of the "sights" of the horticultural display in open ground, and cannot help but add to the popularity of this easily grown plant.

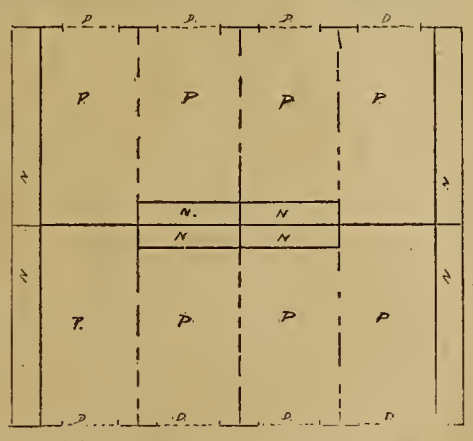
Belgian Hares The Belgian-hare fad is slowly abating, no doubt, and yet I find that people take a good deal of interest in these animals. One of our inquirers seems to have the same trouble that I had met; namely, that the young die off from some unrecognized cause. The boomers in this business usually claim that Belgian hares are exempt from disease. I have lost a good many, and have been unable to say from what cause or disease. Others who have had the same experience tell me that they have had better luck since adopting the practice of putting a drop of hydrachloric acid into one quart or so of the water given to the hares to drink. Another reader, Thomas Edwards, of Colorado, gives



RABBIT-HUTCH

me a plan of a rabbit-hutch which strikes me as excellent and tempts me to build one exactly like it. The construction is shown in accompanying illustrations. My correspondent describes it as follows: "The building should have the floor at least two inches off the ground, and banked up as much as possible all around, for warmth. Nest-boxes for breeding-does should have partition in for nest. Partitions between pens should be of wood, as some hares will fight through wire and they will not do well. Nest-boxes should have the lid hung with hinges, so that the dirt can be removed and the boxes opened."

In regard to the management Mr. Edwards says: "I feed once a day corn-chop, and alfalfa green when I can get it, and when I cannot, alfalfa-hay leaves. I do not change the food at any time, and I have as fine hares as any one around here. I give plenty of fresh water and keep them supplied with salt. Climate has a great deal to do with the successful raising of Belgian hares. They require a very dry and fairly warm place, well protected from cold winds and shaded from the hot sunshine. The reason I feed my hares the way I do is that corn is fattening, and I find they grow better on it than on oats or wheat. Rabbits naturally are all muscle, and do not require food to make more muscle. They require some green food the year round, but not to excess, as it will cause bowel complaint; neither can they live on all dry food, as they cannot digest it. They require fresh water, and, above all, they must be kept absolutely dry; the least damp-



FLOOR PLAN—P, PEN; D, DOOR; N, NEST

ness will kill them off quickly. Keep each breeding-doe separate and handle as little as possible. Do not breed a doe again until you can take the young from her. You will get better young ones and keep the doe in better condition. If hutches are kept clean you will find the hares will also be clean and more healthy."

T. GREINER.

SALIENT FARM NOTES

Make Every Stroke Count When I hear a farmer declare that farming is a losing business I am reminded of the remark of a middle-aged Irishman I once knew. This Irishman, a spruce young man and myself were working for a farmer. One day we were "nooning" in the barn, and the young man, who had been visiting the evening previous, said, "Mike, I want to ask you a question." "Yes, sor," said Mike. "You have seen a great deal of the world, and you must have done considerable courting in your time—" "I have, sor." "Well, did your girl ever get mad when you tried to kiss her?" "Av coourse, sor! That is to say, she wad put on that appearance, sor, because it was very proper she should." "Well, what I mean, did she ever get fighting mad and stay mad all the rest of the evening?" "Is that the way your gir-rl did, me b'y?" "Yes," replied the young man, gloomily. "Aha! Thin let me tell ye, me b'y, she's not your gir-rl; she belongs to the other feller, an' ye may jist as well quit right now!" When a farmer complains that he cannot make farming pay; that it is a losing business, the life of a slave, etc., it is very evident that he has another man's job, and the sooner he quits the farm the better it will be for the farm he quits, for himself and all those concerned.

One of the most successful farmers I ever knew attributed his success to a little item he once read in an agricultural paper. He cut it out and actually pasted it in his hat, and for a long time looked at it a dozen or more times a day, and he said that reading it over and over kept the idea in his mind until it finally raised him from a clodhopper to a farmer. It was only this: "Don't hurry, don't worry; but keep moving, and make every stroke count." He declared that every time he read these few words they seemed to have a new meaning. He had hurried his horses that season until they had lost all spirit, and he was really ashamed of the great galls on their shoulders. He had worried about the weather, the condition of the soil, the rapid growth of the weeds, and a hundred other things, until he was almost worn out.

He decided then and there to make a complete change in his methods. He began to study and plan more. He quit hurrying, but kept moving, and at the same time studying how best to do the most effective work. He said he tried to be like the old man's trap, "To catch 'em coming and catch 'em going." He kept his work so planned that he could pass from one job to another without a moment's delay; put his tools in perfect working condition when rain kept him out of the field; arranged his chores so as to save all the steps possible, and farmed only as much land as he could till thoroughly. The result was better crops and larger profit, better health and more strength, a clearer mind and more restful sleep.

Many another farmer could benefit himself immensely by adopting the same methods. If he has more than he can do himself it will pay him to hire a hand, and in doing this to not be afraid of giving a dollar or two more than "the going wages." I worked for farmers a long time, and always noticed that those farmers who gave good wages and paid those wages promptly had good hands. A man feels rather proud of the fact that he is getting a dollar or so a month more than the average hired man. He recognizes the fact that he is getting it because his employer considers him worth it, and naturally it stimulates him to put forth his best efforts. By paying a man good wages, and having him do the greater part of the field-work, one has more time to devote to the planning and details. Most hired men would rather do the field-work than the odds and ends that must be attended to, and a well-paid man will try hard to do the work as nearly as possible like the farmer wants it done. A hired man is very much like a soldier—the more thoroughly informed his commander is the greater his respect for him. The farmer who does not understand his business, or is constantly chanting hard times and calamity, or delights in sneering at the government and execrating wealthy people, is not a man who will win the respect of a hired man or get the best service from him. Times never were better for the American farmer than they are right now, and if one is not doing well it is because he does not understand his business or is trying to carry too great a burden.

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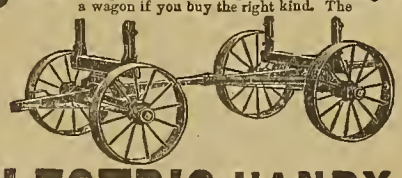

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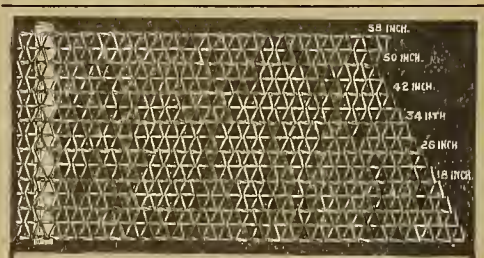

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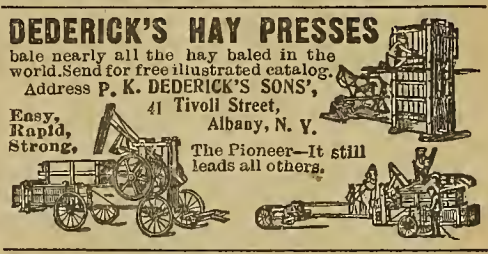

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OUR FARM

FARM THEORY AND PRACTICE

Some Details in Farm-work.—It is important to us that we like our every-day work. Many of us cannot change our employment with safety, even when we should greatly prefer to do so, and the next best thing is to make our work as pleasant to ourselves as possible. Farm labor is now performed largely by machinery, and the handling of horses and farm implements occupies the greater part of the time spent by the farmer in the field. Many years of experience and of observation lead me to say that much can be done to save annoyance, vexatious delays and unnecessary physical exertion in the use of farm machinery, and that such foresight and planning pays big. At the risk of repeating some things that have been said by others I should like to call attention to some details in the handling of implements, being sure that they are worthy of a closer watching than many give them.

Standard Goods.—All goods of wide reputation were once new upon the market, and often a new implement of great merit appears; therefore, it does not do to say that we should not buy an unknown machine. But it is distinctly a mistake to buy any new style of machine for the sake of novelty or to gratify an inclination to be different from one's neighbors. The implement that does satisfactory work on a neighbor's farm is usually the safe one to buy. If it is made by an established firm that cannot afford to send out any goods not perfect in workmanship, and if it is in general use iu the vicinity, so that supplies are sure to be kept in the future, it is a far more sensible purchase than some novelty with no sure future before it.

When an implement is purchased, be it a self-binder, harvester, or only a breaking-plow, set down in a memorandum-book the date of purchase, the number of the machine and the address of the manufacturers. Misfits in repairs are often due to failure to identify the machine for which the repairs are wanted. Manufacturers often make some changes in their models, and the number or year of the machine is an important item. Keep a memorandum-book for the purpose of saving future bother. Order repairs as soon as it is known that they are needed. At the end of a season fit the machine for the next season. It is no more trouble then than later, and there is comfort in knowing that one is ready for the work when the time for work comes.

A Good Rule.—If paint is kept on the woodwork of a machine, and rust is kept off the steel, the machine lasts much longer, and there is more satisfaction in running it while it does last. Years of experience in housing tools teach that most implements can be drawn direct to the shed from the field each evening without any additional labor, or without enough labor to counterbalance the advantage of having the implements at the shed the next morning if rain or other work interrupts one's plans. If this is not practicable, as in case of a harvester, then a tarpaulin pays. Rust causes sweat, and in consequence is hard on the temper.

Supplies.—It is poor business trying to farm with modern implements unless one has a good assortment of bolts, screws, nails, etc. The bolts should be bought by the quantity and the sizes should be those in use in the implements. Many of these are odd—not the common ones of a cross-roads store—and a full supply of them is a great convenience to a busy man. A rich man, farming for fun, can afford to do without these things, but a practical farmer needing income cannot afford to be without a few dollars invested in such hardware. With bolts, screws, nails and wire of various sizes he can prevent many a break and save time.

These materials for repairs, together with some seasoned lumber, extras for machines, etc., should be kept in a room, however cheap, where there is a work-bench and a good vise. Some harness-leather and fixtures should be kept in this room. It is a distinct comfort to have a stock of every needed repair on hand, and the poorer a man is the more he needs such a supply. If such articles have a habit of straying away, put a lock on the door.

An Emery-stone.—In a list of things that actually pay and add to the comfort of farm-work, an emery-wheel cannot be omitted. Four dollars or less will secure a device for sharpening edged tools that are needed. It is superior to a grindstone in keeping a mower-knife sharp, it brings all dull tools to an edge quickly, and it is often useful in fitting the steel parts of a machine. It does not replace a grindstone fully, but it has a place of its own in making our work pleasant aud profitable.

Makeshifts.—I make no plea that the farmer be a "jack-of-all-trades." Let the skilled workman do that at which he served his apprenticeship, aud we will do our work. But little repairs about machinery, harness and buildings are always needed, and many of them can wait ouly with risk of loss. It results that we learn to use makeshifts, and they are costly. A big nail is used where a screw or small nail was needed, only to do more harm than good; a good strap off the harness is used where a cent's worth of wire would have served; or a piece of string exasperates where a new snap or buckle is needed. There is folly in makeshifts when one can cultivate forethought, and have exactly what is wanted at less cost in the long run than is entailed by use of the substitutes.

Edged tools that are sharp, steel that is bright, wood that is unrotted and strong, bearings that are clean and well oiled, harness kept oiled aud mended, repairs convenient to one's hand—all these things help to profit and add to the comfort of the worker. Some of them are "little thiugs," but they make the difference between smooth-running work and vexatious, costly work. Wanting pay each week for having lived that week, forego the extravagance of makeshifts and try the true economy indicated, if by any chance you have been failing to do so.

David.

FARMERS AND SPECULATION

The stories which come from the great centers of civilization of the fortunes made and lost in a few moments, of men made insane and of homes ruined by speculation cause one to be glad that his lot has been cast in the country, where life runs with a more quiet flow, and we can lie down at night secure in the thought that when we rise again all will be going on as it was the night before.

Not all of us place as high a value as we should upon the stability of the farm. We often get uneasy and wish we were out of farming and into the fever of the city. Our conversation on the subject leads our boys to think the farm is about the worst place in the world for the young man, and they are ready to hasten away at the first opportunity.

In the country chances for speculation are very few. Now and then a man risks something in trading horses; and, by the way, this is about the most unsatisfactory and unprofitable form of speculation the farmer can well indulge. By this I do not mean that there may not be times when one may not change one or more of his horses to good advantage. Horses grow old like the rest of us and must be parted with; but what I do mean is that it is one of the worst habits a farmer can contract to become a horse-trader. I have in mind the case of several young men who have decidedly injured their prospects as farmers and lost much money by indulging this passion to exchange horses.

Then, too, some men have a tendency to speculate in land and other farm property. Now and then men have bettered themselves by buying farms which have been allowed to run down, and by investing some money and considerable hard work bringing them up to a marketable condition. But where one man may safely do this, ten may make a great mistake. Peculiar ability is required to do this well.

But compared to the life of the city, the temptation to speculate in stocks and other uncertain forms of property is slight; and it is a thing to be devoutly thankful for that this is so. In the minds of many men, especially at the present time, there is a tendency to take risks. A man sees his neighbor successfully operating in the market. He believes he is just as "smart" as his friend, and begins to dabble in stocks himself. If his first venture by any chance turns out to be a success, so much the worse for him. He makes more daring ventures. Then suddenly the end comes and he stands face to face with disaster. This is the story of many a man's life. If we knew more about it, probably there are more men to-day in the cities who are putting into the "bucket-shops" and other gambling-places all the money they can raise, money sorely needed in the home, than we dream of.

The farmer who contents himself with pursuing the even tenor of his way, gathering what he has sowed, and is satisfied to see the legitimate fruit of the work of his own hands, knows nothing of the fever which burns in the veins of his neighbor of the city. His land remains in its place. It cannot be taken from him by any manoeuvering of the figures on a board, or the machinations of the man whose meat and drink it is to make or break some one else. No one can get up a corner which will rob him before night of all he has earned in years.

Passing through the country not long ago I came to a lovely spot tucked away among the hills of one of our states. Just at that point the valley which had been winding in and out among the hills widened a little and furnished space for several fine farms. Here on one hand was the old homestead. It could be distinguished by the house, which was somewhat old in the fashion of its gables and other architecture, and by the large trees which grew about it. A short distance away was a beautiful house where one of the old man's sons lived. Across the way was still another fine residence which sheltered a second son. These younger men were both partners of the father. Instead of going away to the city they had entered into business with their father on the home farm. Everything indicated a degree of thrift and stability well pleasing to think of. Stocks might tumble and fortunes crumble to ruin; the world, their little world, would go on just the same. Quiet? Yes, thanks to a kind Providence, it was quiet. The only sounds to be heard were the whistling of the birds and the hum of farm industry. Here the heart might keep its youth. Here life was worth living. It was a picture of what rural life should always be.

There are many signs that our American life is turning back to the country. Talk with almost any city man you meet, and he will tell you of his longing to get away into the country. He intends to have a little place of his own by and by. Tired of the rush and the worry, men are longing to go out and serve their fellows on the farm. The tendency is a healthy one, and we may all encourage it to the best of our ability.

Edgar L. Vincent.

REARING CALVES UPON SKIM-MILK

Within the past decade Kansas has amply demonstrated her superior natural advantages for dairying by rising from a position of comparative obscurity to a foremost rank among the states noted for the excellence of their dairy products. In response to the special invitation of Secretary F. D. Coburn, of the State Board of Agriculture, Prof. D. H. Otis, of the Kansas Agricultural College, ably discusses many features pertaining to profitable dairying in Kansas and elsewhere in the recent biennial report of the board. What he has to say concerning the important problem of rearing calves upon skim-milk follows, in part:

"When calves six months old are worth from eighteen to twenty dollars a head, and when the profits from a good milk-cow are so greatly enhanced by raising the calf on skim-milk, it is vastly important that we know how, first, to raise a No. 1 calf; and second (especially to the man with limited capital on high-priced land), how to accomplish this result through the medium of skim-milk. The following points on feeding skim-milk have been gleaned from actual experience from handling calves:

"The young calf may either be taken from the cow a few hours after birth or left until its mother's milk is fit for use. Where the cow's udder is in good shape it is easier to teach the calf to drink when it is taken away before sucking at all. In nature the calf gets its milk often, but in small quantities, and always at blood temperature. In this respect we should imitate nature as far as possible. At first the calf should not be fed over ten pounds daily (one quart equals about two pounds), divided into three messes—four pounds in the morning, two pounds at noon and four pounds at night. This quantity may be increased gradually to twelve pounds a day. After two weeks the milk may be given only twice daily. Calf-milk should always be fed warm and sweet. If impossible to have the milk sweet all the time, then it should be fed sour every meal. It is possible to raise good calves on sour milk, but it is impossible to raise good calves and have sweet milk one meal and sour the next.

"When two or three weeks old we may begin to feed skim-milk. The stomach of a calf is delicate and sensitive, and any change of feed should be made gradually. Do not change from whole milk to skim-milk faster than one pound or one and one half pounds a day; that is, if the calf is getting twelve pounds of whole milk a day, the first day of the change feed eleven pounds of whole milk and one pound of skim-milk; the second day ten pounds of whole milk and two pounds of skim-milk; and so on, until the change is complete.

"It has been found by experience that the starch and fat contained in corn or Kafir-corn can be made to take the place of fat removed from the milk. Calves will begin to eat grain when from ten days to two weeks old. At first put a little meal in their mouths after drinking their milk, and in a short time they will go to their feed-boxes and eat with a relish. We find that calves four weeks old will eat from one half to three fourths of a pound a day; when eight weeks old from one and one fourth to one and one half pounds a day.

"Kafir-corn meal has proven to be a superior feed for calves. It seems to be somewhat constipating, and materially assists in checking the common tendency to scours.

"Calves will begin to nibble at hay about the same time that they commence to eat grain. When from six to eight weeks old the calves under experiment at our agricultural college consumed from one half to one pound daily a head. Mixed orchard-grass and prairie-hay are best. Alfalfa hay proves to be too loosening for young calves, though it may be gradually introduced into the ration after from three to four months. Nothiug but clean and bright hay should be used.

"The greatest difficulty in raising calves is undoubtedly scours. Here, as elsewhere, 'an ounce of prevention is worth a pound of cure.' The principal causes are overfeeding, feeding sour milk, feeding cold milk, feeding grain with the milk, dirty milk-pails, unwholesome feed-boxes and irregularity of feeding. An intelligent and observing feeder will notice the symptoms of this disease as soon as it appears, in which case the ration of milk should be cut down one half or more, and gradually increased again as the calf is able to stand it. A successful feeder will do his best to keep the milk sweet.

"Heating milk seems to produce chemical changes that help to prevent scours. There is probably no more effective way of upsetting the system of the young calf than by feeding it cold milk. So important is it always to feed the milk at blood temperature (ninety-five to one hundred degrees Fahrenheit) that a careful feeder will test the temperature with a thermometer. No one can expect to successfully raise skim-milk calves without giving close attention to the temperature of the milk fed.

"Calf-buckets may be kept clean by rinsing and scalding after each feed. No more grain or hay should be given than the calves will eat up clean. Should any remain uneaten it should be removed before giving any fresh feed. Calves like salt the same as any other animals.

"To summarize, warm, sweet milk given in clean buckets, with access to corn-meal or Kafir-corn meal, bright hay, fresh, clean water, salt, plenty of sunlight, shelter and bedding in cold weather, shade in summer, regularity and kindness in treatment will usually insure good, thrifty calves that will gain from one and one half pounds to two pounds daily."

MODEL TROUGH—KEG NESTS

That "model trough" in the March 15th issue struck me rather forcibly, and I wish to remark that no trough is a model trough into which a hog can get his feet.

If hogmen will make their troughs like three sides of a box, set them up same as the V trough, and nail one-by-four slats across the open side just far enough apart for a hog to get his head in, and no more, they will find that they have solved the problem of even feeding. The slow-feeding hog will simply stay by his plate until he gets his dinner, and the boss can't get him out. The top need not be covered solid; an opening the whole length may be left through which to fill the trough.

Everybody who handles hens knows what a bother it is to get the right kind of a nest. The most satisfactory thing I ever saw is made after this manner: Nail an eight-inch board across the open end of a nail-keg, leaving about five and one half inches of an opening. Let the board be as long as the keg is wide in the middle, then when the keg is laid down on its side it will rest upon the board and the other end. You now have a covered nest and one easily closed up. I have used this for many years. Fixed nests have no proper place in any hennery.

C. J. Arnold.

THE MOST PRODUCTIVE SUGAR PLANTATION IN THE WORLD

[CONTINUED FROM PAGE 1]

thousand loads daily. Allowing ten feet for horses, ten for the wagon and the same space between loads, a great procession five miles long would file up to the stable each evening. This gives some idea of the stupendous labor this enterprise involves.

One of the most interesting features of the place is the large number of people employed and the great number of nationalities among the ninety-four skilled workmen and the eighteen hundred laborers—a small village! Seventy per cent of these are Japanese, twenty per cent Chinese and the remainder Portuguese and natives. Six hundred of these are cultivating cane on the profit-sharing system—that is, the company furnishes them with fuel, water, house, garden, and medical service. In return for this the laborer cultivates a cane-field of a given size.

After the company has prepared the ground, planted a crop and given it the first irrigation, the laborer takes it over and brings it to harvesting, after which he receives one sixth of the sale price from the cane. This system is followed on a number of plantations with much satisfaction.

All other employees are furnished with the same advantages free of charge, and receive a wage of from seventeen to twenty dollars a month. The house accommodations are exceedingly poor, and the "quarters" destitute of any comfort. A "camp" for each nationality has been established in most undesirable sections of the plantation, where the men literally herd, as many as forty occupying one room. The rooms are very poorly ventilated, and every inch of space is used for sleeping purposes. These are commonly called "bunk-houses," a term that fully expresses what they are. Bunks are built in the sides of the room as many as six deep, one above the other. Into these the unwashed, tired Celestial crawls, clothes and all, too tired to care aud too sleepy to know what his surroundings are like. The Japanese are more particular, and refuse to be thus herded, demanding better quarters. Many of these are married, and their quarters are greatly enlivened by the sprightly youngsters, who seem to enjoy plantation-life to the fullest extent.

One of the great sights of the plantation is to see the workmen starting out to their daily toil about six o'clock in the morning. They gather at a given point in squads of five hundred or more, where the trains stand ready to convey them to their allotted task of cutting, plowing, stripping or planting. Ofttimes they move off chanting in their strange tongue, that strikes our ears very much as the "Song of the Shirt" would, telling of the grind of toil, toil, toil!

Because of the unsanitary conditions there is much illness among the laborers. The physician is English-speaking and must diagnose each case through an interpreter. Were it not for a consciousness of human suffering the scenes that daily take place in the doctor's rooms would afford no small degree of amusement. The scanty clothes, unspoken misery depicted upon their unattractive faces, and vaiu attempts to locate the disorder, present a picture never seen under any other circumstances.

The trained eye and ready wit of the doctor lead him at once to single out those who are really ill and those "weary Willies" who were born tired and only desire freedom from the day's toil. Hundreds visit his rooms in the course of the day at some seasons of the year when fevers prevail. All medical attendance is furnished free of charge to the laborer by the company.

For the whites employed abont the place, and any others who desire to take advantage of it, the company has provided regular religious services. That those of one particular faith may not be obliged to violate their conscience, a Roman Catholic church and a Protestant church have been built. These are supplied with regular preachers from the city of Honolulu, and religious opportunity is not wanting.

A fiue public school has been erected, free to all. In connection with it there is a good kindergarten system for the little tots of all races. There are sixty in the school and forty in the kindergarten.

An acre has been inclosed, fitted up and planted out with trees, for a playground for the children. In one corner of the grounds a goodly sized hall has been built, in which social gatherings are held, and dances, concerts, lectures and the like are no small feature of these workaday people, who find the plantation-life a world sufficiently large in which to spend the passing days.

FROM CANE-FIELD TO CRUSHING-MILL

FIELD-BEAN CULTURE

The growing of wax and green-podded beans for canneries has assumed considerable proportions within the last few years in certain sections, and the market-gardener and trucker have found an increased demand among private customers and the markets for string-beans for canning and for pickling down in jars, casks and barrels, while farmers and private gardeners are paying more attention to the production of a better quality of pod that will have more flavor and brittleness and less stringiness and toughness of the outer skin. The better qualities come from higher culture, and the undesirable features are the result of practising the theory that land which is too poor to grow anything else will grow beans.

Having been repeatedly asked to describe my method of growing "string" beans, it is detailed below as briefly as possible.

First, to successfully grow string-beans of that desirable luscious, tender quality it is necessary to force the growth of plant and pod to the limit.

In the garden, either private or commercial, the canning crop of beans can be made to follow some earlier crop that has been cleared from the ground, such as early peas, potatoes, celery, etc.

Where they are planted on ground as the first crop for the season, a light, loose, loamy soil should be selected. The beans shown in the photograph reproduced herewith, however, were grown on a stiff upland clay, the group on the right representing two vines grown thereon in the ordinary way and with the culture usually given the bean crop, the group on the left showing two vines grown in the same field under the manurial and cultural treatment further described.

The ground, an exhausted timothy sod, was plowed in June and thoroughly pulverized with disk, spring-tooth harrow and roller until moderately firmed, to retain moisture. During the first week in July rows were "made up" with a potato-planter having a fertilizer-distributing attachment, using five hundred pounds of a high-grade complete vegetable manure (containing three per cent nitrogen, in organic forms; seven per cent phosphoric acid, available, and seven per cent potash, in muriate) an acre, and the field left undisturbed except to use the weeder to destroy starting weed-seed and provide a dust mulch until planting-time. On the twentieth of July seed of Wardwell Kidney Wax was planted with the garden-seed drill on these made-up rows. As soon as the rows could be seen after the plants broke ground they were cultivated with the small bull-tongues on the wheel-hoe, followed in three days by the horse-hoe, burying the standard in the loose soil and going as close to the plants as possible without tearing them out or covering them up. Frequent cultivations were given during the growing season, gradually allowing cultivator to run more shallow and further from the rows, until just before the last cultivation an application of nitrate of soda, at the rate of one hundred and fifty pounds to the acre, was made alongside the row and thoroughly worked in about the roots of the plants, after which, and just before coming in full bloom, a large single shovel was used to ridge or bank up the rows as high as possible, placing all the available fertilizer near the plants, where it would readily leach down to the roots, serving to drain all surplus water to the center of row during the heavy autumn rains, leaving the earth about the plants reasonably dry, thus preventing rust by the pod coming in contact with muddy, water-soaked soil. The illustration certainly tells a plain, straightforward story as to whether or not the method of culture here described is a profitable one, in comparison with those given the ordinary field culture, as shown. R. M. W.

CORRESPONDENCE

FROM MISSOURI.—Henry County is one of the most productive counties in the state, especially the western part. Our crops are corn, wheat, oats, flax, timothy and all kinds of clover. We have pasture in abundance, and plenty of fruits. We are about eighty miles from Kansas City. Considering the beauty of the country and nearness to markets, land is remarkably cheap—$20 to $35 an acre, owing to location. J. B. R.

Urich, Mo.

FROM PENNSYLVANIA.—York County is situated in the southern part of the state. We live near Dillsburg, in the northern part of the county. The farmers in this section raise corn, wheat, oats, rye and garden vegetables. There are many fine orchards near Dillsburg. Fruit-trees all blossomed well, and promise a fine crop. The clover that was sown a year ago did not catch on account of the drought, consequently we will have no clover hay this summer, but the timothy is well set. Hay sold last winter at from $18 to $22 a ton. The prices of products are: Wheat, 73 cents a bushel; corn, 50 cents; oats, 32 cents; rye, 50 cents; potatoes, 60 cents; clover-seed, $7.50; timothy-seed, $2. We all enjoy reading the FARM AND FIRESIDE. C. B.

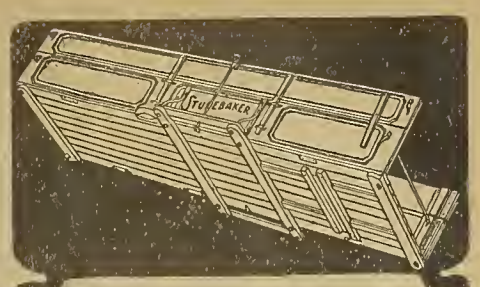
Dillsburg, Pa.

BOOKS NOTICED

FARM BLACKSMITHING. By James M. Drew, Instructor in Blacksmithing, School of Agriculture, University of Minnesota, St. Anthony Park, Minn. Price 50 cents. An illustrated manual plainly describing all the operations necessary in the work of the farm blacksmith.

FITTING SHEEP FOR THE SHOW RING AND MARKET. By W. J. Clarke, "Shepherd Boy." A practical treatise on the selection, judging, feeding and care of sheep and lambs for the show ring and sale by auction, with chapters on dressing sheep and lambs for market. Illustrated. Cloth-bound; 250 pages. Draper Publishing and Supply Co., Chicago, Ill.

THE GARDEN-BOOK FOR PRACTICAL FARMERS. By T. Greiner. Illustrated. Paper cover; 190 pages. Price 50 cents. The Farmer Co., Philadelphia, Pa. An entertaining, instructive and inspiring book by a noble man with a good hoe, who has been successfully practising and preaching the gospel of good gardening for thirty years. Mr. Greiner has been so long and favorably known by the readers of FARM AND FIRESIDE that the announcement of a new book from his pen is a matter of interest and pleasure to them.



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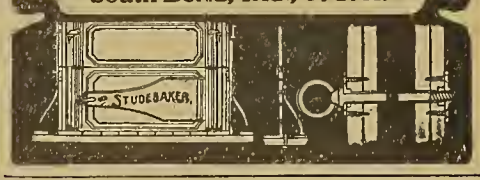

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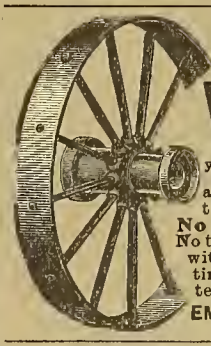

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Notes From Garden and Field

Fighting the Potato-beetle An Illinois reader believes that the best time to use Paris green for the Colorado potato-bugs is soon after the plants are up, and asks me whether I am of the same opinion. The most danger, usually, is from the attacks of the adult beetle, the old hard-shell, at the time when the first-planted potatoes just break ground. These plants offer very little leaf surface, and are easily kept down and badly injured by the hungry hordes of beetles, and these will almost dig down into the ground to meet the coming foliage. My practice is to let a boy (or boys) go over the patch once or twice a day in warm weather and gather up all the beetles he can find, putting them into little pails, cans or basins containing a little water and kerosene-oil. I used to ridicule Mr. T. B. Terry when he first recommended this plan, but on further investigation and better understanding of the idea I have come over completely to his side. What we should try to do is to prevent these old beetles from depositing their eggs on the young plants, as well as from eating the foliage themselves. I not only try to have all old beetles promptly disposed of, but also to have the plants looked over very carefully, and to pick off and gather into the dish with the old beetles every leaf containing a cluster of the familiar yellowish eggs of this enemy. If this work is thoroughly done there will not be much danger that we find the plants all at once half destroyed by thousands of slugs. Yet with all care and effort some of the beetles and their eggs are overlooked, and for that reason the early potato-patch needs close watching, so that poison may be applied just as soon as the very first of the slugs begins to hatch. The very first thing, too, which I have to do if I wish to keep the plants reasonably free from blight (the early blight, which with me is so very prevalent and destructive) is to prevent mutilation of the potato-foliage by insects. Flea-beetles and potato-bugs just open the way for the blight attack. The Bordeaux mixture is not only our only approved remedy (preventive) for the blight, but also seems to be very distasteful to the flea-beetle, and when Paris green is added at the same time it cleans out the potato-bugs. My mode of procedure, therefore, is to make every effort, even at some cost, to get rid of the hard-shells while the potato-vines are very small; then when they get larger to protect them against the attack of the flea-beetles and potato-bug slugs by early and thorough spraying with the Bordeaux mixture and Paris green combination. I admit, however, that land-plaster is also distasteful to the flea-beetles, and that these can be driven off to some extent, and the potato-bug slugs poisoned very effectively by dusting the vines while yet small with a mixture of land-plaster and Paris green (or green arsenoid, etc.), using not less than one pound of the green to one hundred pounds of the plaster.

Government Seeds A Kansas reader says that he does not wonder a bit about the Washington people sending out seeds without naming the varieties. A year or two ago he got some garden-seeds, among them a package of "Wethersfield onion," which turned out to be a mixture of of Red Globe, Yellow Danvers, Silverskin and some others, with a few Red Wethersfield; a package of Purple-Top Straw-Leaved turnips, which turned out to be mostly rutabagas; a packet of yellow tomatoes, which turned out to be mostly red. He thinks the free-seed distribution is either a big humbug, or Dr. Talmage was all wrong when he stated in one of his sermons that if you plant the seed of one kind of grain or vegetable it would produce each its own kind. The Department at Washington, or the firm to which the contract was let of furnishing the seeds this year, has been subjected to a great deal of criticism for its innovation of sending out these nameless "selected varieties;" but it cannot be said that the criticism was not well deserved.

New Potato Varieties From Grafting A correspondent of "American Agriculturist" claims to have originated a new variety of potatoes by grafting an eye of the Scotch Rose on a large piece of Maule's Commercial which contained but a single eye, and this carefully removed. I confess that I am very skeptic on this point. No doubt it is possible to produce sports by propagating a single eye that happens to have a particular characteristic of its own. Sometimes we find on a tree or bush or plant eyes or limbs that show variegated foliage, and by using such eye or limb as cuttings or grafts for propagation we may be able to retain all these particular characteristics—variegation in foliage or whatever it may be—in the individual plants or trees produced by such propagation. It does not seem probable, however, that the pulp of the Commercial or whatever other variety is used as a stock, or rather as food for the young potato eye or plant used as graft, can have much, if any, influence on the development of the graft. If that was a Scotch Rose it will turn out to be a Scotch Rose; if it was an Early Ohio it will prove to be an Early Ohio, etc. The pulp of the Commercial in this case has simply served as food and helped the eye to make a stronger growth than it would have done without. And that is about all there is to it.

Dill-pickles If you want to make some very palatable German dill-pickles this summer, don't fail to sow a packet of dill in any suitable space in your garden. Seed is cheap, and a five-cent package goes a great ways. I usually sow it as I would parsnips. The seed looks somewhat like parsnip-seed. Or sow it in some odd corner of the garden. After it has once been grown and plants are left to ripen seed you are very likely to have plenty of volunteer plants another year. A reader asks me about the quantity of salt that is required to make the brine for these pickles. As already explained at an earlier occasion, I put large, nice, straight cucumbers (gathered just before the seeds are filling) in layers between layers of fresh grape-leaves, then weight them down, and keep them covered with a brine made by dissolving a common coffee-cupful of salt in about two gallons of water. Some people like their pickles more salty than others. Modify the quantity of salt accordingly. These pickles are very popular among the Germans, and usually are eaten without vinegar, either with bread and butter or potatoes and meat.

Grasshopper Disease Germs A reader in Texas wants me to tell him where he can procure germs of the grasshopper leprosy of which I spoke in an earlier issue. If I remember correctly, some of the officials of the Department at Washington have made experiments on this line. At any rate, it is very sure that the American farmer does not try to be and keep in touch with the National Agricultural Department or with his own experiment station as much as he should. It is the bounden duty of these public officials to do all in their power to assist the American farmer in every way, and if you write to them you will be quite sure of finding proper attention. Whether the Department is ready to send out these germs of the grasshopper leprosy to applicants or not I do not know. But if in need of such help to assist you in fighting the grasshopper plague, by all means go direct with your requests to headquarters at Washington.

T. Greiner.

THE AMERICAN FORESTRY ASSOCIATION

The objects of this important association are to promote and encourage a businesslike and proper treatment of the forest resources of this continent and our insular possessions; to advance educational, legislative and other measures for the better care and protection of our forest reserves; to diffuse special information in regard to the best methods of management, including the renewal of forests; the proper utilization of their products; the reforestation of waste lands; the planting of trees for ornament, and the rendering of our home surroundings more attractive by means of practical object-lessons in arboriculture.

The association holds its annual meetings in Washington, D. C., thereby securing the hearty co-operation of members of Congress to promote its very necessary and commendable objects. A monthly publication entitled "The Forester" is the official organ of the association, and is sent free to all regular members who pay an annual membership fee of two dollars; also to those who, as sustaining members, pay twenty-five dollars. The life-membership fee is one hundred dollars. The president is Hon. James Wilson, Secretary of Agriculture. The address of the secretary is Frederick H. Newell, 1829 Phelps Place, N. W., Washington, D. C.

W. M. K.

"What the dew is to the flower gentle words are to the soul."

Orchard and Small Fruits

TREATMENT FOR THE CANKER-WORM

It is now too late to begin treatment this season for the canker-worm on badly infested orchards, but there are many orchards in which the worms are not numerous where considerable future work might be saved by spraying at once. The only way to combat this pest successfully is to begin spraying before the trees bloom; but in case it is just making its appearance in an orchard late spraying may do considerable good, but the work must be done while the worm is still feeding. Orchards which are supposed to be free from the pest, but are near infested trees, ought to be watched carefully late in May and early in June, for when the worms destroy the foliage on trees where they are numerous they will travel along fences for considerable distances to other orchards.

Thorough spraying with some of the forms of arsenic recommended below will destroy the worms, but it should not be expected that one application will kill all. It may take several seasons' work to accomplish the desired result, but there can be no doubt the pest may be held in check by using the means advised.

Inasmuch as Bordeaux mixture, which consists of four pounds each of lime and copper sulphate to a barrel of water, is needed for apple-scab and other fungous diseases, the most economical plan is to spray with this mixture, adding sufficient poison to kill the worms. Half a pound of Paris green to a barrel of the mixture will answer, provided the Paris green is pure. Three or four pounds to the barrel of Disparene, a proprietary article stated to contain arsenate of lead, may be better, for the reason given below. A cheaper form of arsenic is found in the arsenite of soda, which is made by taking two pounds of commercial white arsenic and four pounds of carbonate of soda to two gallons of water. To dissolve these materials they are boiled together for about fifteen minutes. Take one quart of the solution to a barrel of Bordeaux. If it is desired to use poison alone, either arsenate of lead or Disparene is preferable, because neither injures the foliage. Arsenite of soda, if used alone, is very injurious to foliage, and Paris green is quite likely to do harm, but either may be safely used in Bordeaux mixture. Two or three sprayings during the season are quite necessary to hold the canker-worm in check, and even more to rid a badly infested orchard of the pest. As a rule all that can reasonably be expected is to be able to hold it in check.

Disparene and arsenate of lead may be procured through druggists.—Bulletin of the Ohio Agricultural Experiment Station.

SPRAYING FOR CODLING-MOTH

The remedy for codling-moth is thorough spraying with the arsenical mixtures. Paris green is effective, but there are preparations of white arsenic that are both cheaper and more effective. One of them is made by boiling together for fifteen minutes in one gallon of water one pound of white arsenic and two pounds of sal-soda. One quart of this is sufficient for fifty gallons of water. It is necessary to add two pounds of lime to each fifty gallons of the poisoned water in case Bordeaux mixture is not used instead of water, because of the caustic effect of the arsenic without the lime being added. —Prof. Van Deman, in Rural New-Yorker.

INQUIRIES ANSWERED

Ammoniacal Solution of Copper.—C. H., Houston, Tex. The ammoniacal solution of carbonate of copper is made by dissolving in forty gallons of water three ounces of carbonate of copper and one pound of ammonium carbonate.

Guava.—L. O., Fruitvale, Cal. The seed of the guava generally grows quite easily, and the only reason why the seed you planted did not grow is probably that it had been injured in some way previous to your receiving it.

Black Squash-bug.—W. A. C., Summit, N. J., asks for a swift cure for the large black bugs that infest squash-vines. I would give something to know one. The only practical way of preventing injury by them is to place little chips of wood, clods, etc., around the plants in each hill, and hunt for the bugs once or twice a day during the period of their attack. Nothing swift about this, but usually effective. You can pick the bugs up with some wooden or metal tweezers and throw them in a dish containing a little kerosene. Old squash-plants are often covered with the young bugs in the fall, hundreds of them being found on a single vine. Spray them with kerosene and destroy them by burning.

Katydid Eggs—First Symptoms of Peach-yellows.—J. C. B., Murfreeshoro, Tenn. The twigs you sent have on them the eggs of the katydid, an insect which you probably know very well in its mature form.——The symptoms of peach-yellows are a general weakening of the tree and a tendency to send out clusters of sprouts on the trunk, and a sort of yellowing of the foliage. It is not easy to clearly define it in advance.

Oyster-shell Bark-louse.—L. P., Ocheltree, Kan. The twigs you send are infested with what is known as the oyster-shell bark-louse, which sometimes causes serious injury. This scale-insect may be kept in check by spraying with strong soap-suds in the month of June. In the winter, if the branches are painted with crude petroleum on some bright, drying day, you will get rid of them quickly. It does not look much like the San Jose scale, which is very inconspicuous, being nearly of the color of the bark and very much smaller than the scales on your trees. Some of the scales sent have been destroyed by parasites. In this section the scurfy-scale has been much reduced by parasites.

Rose-bugs.—H. F. W., West Camden, N. Y. There is no perfectly satisfactory remedy for rose-bugs. Where one has a few grape-vines, the flowers may be protected by bagging the clusters with mosquito-netting. With some of the self-sterile varieties, however, this would prevent their fruiting, so that the remedy would be as bad as the disease. But in the case of most of the varieties of grapes, such as the Concord, Worden, Lady and many others, it will work satisfactorily. It has also been found that spraying the vines with Bordeaux mixture when they are in flower seems to make the blossoms so distasteful to the rose-bugs that they let them alone. I think I should try this latter remedy if I had grapes on a large scale, when the rose-bugs were troublesome.

Peach-leaf Curl.—M. P., Springdale, Ark. The specimens of diseased peach-leaves which you have sent are affected with what is known as the peach-leaf curl, which is a fungous disease commonly attacking the leaves of peach-trees, causing them to turn yellow, wrinkled and swollen and curled up, and later on to die and fall off. The same disease also attacks the fruit of plum-trees, causing them to be puffed up and making what is known as wind-plum or bladder-plum. The best treatment for it is spraying the trees early in the spring, before the leaves open, with thick Bordeaux mixture. That is made of five pounds of lime, five pounds of sulphate of copper and twenty-five gallons of water. Experiments with this on an extended scale seem to show that if properly used there need be no failure from this disease. The name of the fungus that causes the trouble is Exoascus deformans. After the disease has attacked the foliage no remedies can be successfully applied, and all you can do this year is to give the trees good cultivation, so they may have right conditions for resisting disease, and next year get at it early and spray with Bordeaux mixture, as recommended.

Barrenness of Fruit-trees.—L. J. R., Tupelo, Texas. A great many remedies have been given for preventing barrenness in trees. The boring of a hole in a tree, however, and then putting in a block of wood from a tree that does bear would not have any appreciable effect on the bearing qualities. Trees or shrubs are inclined to be unfruitful when they are growing rapidly, and they may be thrown into bearing by anything that checks growth. This may be the digging up of the tree, by which process the roots are injured, or it may be by cutting some of the roots off around the tree with a spade; or the top of the tree is pruned severely in June; or the tree may be girdled. Any of these may cause the tree to bloom. The most practical way to treat trees that are tardy about producing fruit-buds is to girdle them with a common hand cross-cut saw, and with it simply cut through the bark to the wood about the middle of June. This will check the flow of plant-food to the roots, and have a tendency to make the tree form fruit-buds instead of leaf-buds. As a rule, however, this treatment is not to be recommended for any excepting old cases where it seems as if the trees never would come into bearing by any other treatment. Usually it is very desirable to allow trees to grow without bearing much fruit until they have made a good strong growth, after which they will prove much more profitable in fruit-bearing than if they are forced to fruit younger.

Raspberry Species.—F. F. T., Osceola, Wis. There are practically only three species of raspberry growing wild in this country. The first is the common red raspberry, known to botanists as Rubus strigosis. This grows by suckers from the roots, and while most of the plants bear red fruit, occasionally one will be found that has yellow fruit. A cultivated yellow variety belonging to this latter group is known as the Golden Queen, or Yellow Cuthbert. Then we have the blackcap raspberries, known to botanists as Rubus occidentalis. These do not sucker, but grow from layers, the tips of the branches bending to the ground in the latter part of the summer and taking root. The fruit of this class is generally black, but there are some yellow varieties, although I do not know of any that are of real good quality. Occasionally there will be found in our woods berries having a kind of purplish color. These frequently grow only from the tip layers, but occasionally they also increase by suckers. These were at one time grouped under the name of Rubus neglectus, but further investigation seems to show they are simply hybrids between the blackcaps and the red raspberries. Of this class Schaeffer's Colossal, the Columbian and Philadelphia are good examples. I have raised some seedlings of these that had yellow fruit. You will thus see that while each class is known by a special color of fruit yet there are many exceptions to the rule.

THE POULTRY-YARD

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FEEDING AND LAYING

THE feeding of a flock of hens depends upon whether grass is plentiful or not. In summer less food is required than in winter. If the hens have grass, a pound of lean meat or liver is sufficient, giving no grain at all in summer, or half a pound of ground bone may be given three times a week in addition. In winter reduce the meat to one half and give a pint of wheat. It is better to have them hungry and compel them to work hard for their food. Regarding chicks there is but one rule—give them all they will eat three times a day. The food may consist of cracked corn, wheat, lean meat, cut meat and bone and grass or vegetables, all chopped or cut fine. A day's ration need not vary much from that for a week, except that twice a week each hen should have a level tablespoonful of linseed-meal mixed with bran. Of course, table-scraps, bread, bran and ground oats scalded, or cabbage, clover and other green foods are always in order. The result of feeding too much should not fail to impress itself upon poultrymen and farmers. If a hen is laying, she naturally converts a large share of the food into eggs. If she is not laying, the surplus food is stored on the body as fat. At first the hens may lay a large number of eggs, but if overfed, then the fat accumulates faster than it can be utilized, and after a while they begin to slacken in laying. They then begin to have indigestion, baggy crops, large livers, are subject to choking (or difficult breathing), some go blind, they lay soft-shelled eggs or large, double-yolk eggs, want to sit (nature's remedy for relief), and are subject to other diseases. Sooner or later they reach a stage at which egg production ceases because the generative organs become clogged, and then the remark occurs, "Pullets are better than hens," a remark due to the fact that as a pullet is growing she does not fatten as readily as a hen. Regarding pullets that should be laying something depends upon their age. If they begin to lay before cold weather they will keep at it; but as a rule, if they enter into the winter season before laying, they will usually not begin before spring. Of course, all pullets are not alike. Some are better than others, and the same may be said of the hens.

SUMMER FEEDING

When fowls are on a range they can usually secure much more food than may be supposed, and to give corn at night, especially in summer, is to put them out of laying condition. In the winter season corn may be used, but farmers and poultrymen should not overlook the fact that when a hen has free range she becomes very fat, as she has an opportunity for securing more food than she needs. The fact that a hen does not appear fat may be a delusion. If all the fowls—hens and chicks—are not thrifty it is a sure sign that there is something wrong with the food or that lice are at fault. The remedy is to put the birds up and give nothing for forty-eight hours. Then once a day, for ten days, give lean meat only, an ounce a hen, and then feed a variety twice a day after the tenth day. The noon meal is objected to because it allows only four or five hours between meals, the hens having no inducement to scratch.

The scratching is really the most important thing in the management of poultry—more so than the amount of food—and the best way to know when hens are receiving too much is to observe if they are busily engaged in scratching. If not, then they are overfed. An excellent rule to follow as a guide in feeding is "no scratch, no food," for when a hen is busy she is usually a good layer. Fowls will not thrive and lay eggs if they receive all the food they require without some effort on their part to secure it. Millet-seed or Hungarian-grass seed is cheap, and half a pint a day scattered over a wide surface is as good as a quart. The object in using it is to induce the hens to hunt and scratch. For chicks the seeds are excellent. If clover hay is plentiful it may be used, also, and the hens will eat the leaves, which will be fully as beneficial as the cutting and scalding. In using any kind of food do not overlook the fact that a change is always acceptable to the fowls. Some days a quart of Hungarian or millet seed may be given as a meal; but always scatter it. If animal-meal is given, let it be every day if cut bone is used; also the same with clover. Give cabbage, cut roots or any bulky food by way of change if the birds are confined, varying the grains, also, as well as giving, once a week at least, some linseed-meal mixed with bran.

HENS AND BROODS

The coop with the hen and brood should be moved on fresh ground every day or two, as the weather may be dry or sloppy. When the hen begins to lay, or it becomes time to wean the chicks, she may be removed and the chicks left for a short while longer, care being taken to close the front of the coop at night (if the weather is cold) with a piece of thin board inserted between the coop and the run. The great object in keeping the hen in semi-confinement in this manner is to prevent the young birds from being trailed about and lost in long, wet grass, as is often the case. Two or three broods may be placed together in one large nursery yard or pen for a few weeks until it appears time to sort them for different runs or let them have their liberty. They should never be allowed, however, to run or perch with old fowls, in which case the chances are that they will be injured or killed. When first removed to the poultry-house the floor should be covered with short straw or chaff, as many chicks prefer to sit in batches on the ground to going on the perches.

BROODER-CHICKS

Brooder-chicks should not be fed too much at a time. Nothing will cause bowel disease in young chickens sooner than hard-boiled eggs if given too liberally. Eggs may be given about once or twice a week only. The food for chicks the first week should be millet-seed and pin-head oatmeal, cracked corn, cracked wheat, stale bread, meat, ground bone, and when older anything that they will eat. There is no way to use a thermometer with a brooder to prove satisfactory, as the temperature on the floor will not be the same as that above the chicks. A thermometer is not needed. If the chicks in the brooder spread out and do not crowd the warmth is about correct; but if they crowd they are not warm enough. It is possible to have the heat too high or too low.

INQUIRIES ANSWERED

Pigeons.—"A Subscriber" writes: "Where can I get a book or paper on the breeding and management of pigeons?"

REPLY:—The "New and Complete Poultry Book" (revised) contains a department on pigeons. It can be obtained of the publishers of this paper.

White Wyandottes.—L. H. E., Salem, Ohio, writes: "I have some White Wyandotte chicks, and some of them have single combs. They were hatched early, and are now nearly three months old. Are they pure Wyandottes?"

REPLY:—Probably there is some White Plymouth Rock blood in them, as Wyandottes should have rose-combs, not single combs.

Leghorns.—E. T. B., Bowling Green, Ky., writes: "I have a white Leghorn hen that is now sitting. Is she pure-bred? I have always supposed that Leghorns were non-sitters."

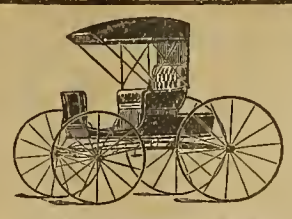
REPLY:—Leghorn hens sometimes become broody, especially if they have been heavily fed. No breed is strictly non-sitting, as hens will become broody under favorable conditions or circumstances.

Roup.—L. M., Flora, Ill., writes: "I wish to know the best remedy for roup. My chickens have been troubled all winter with it."

REPLY:—So many diseases are termed "roup" (really catarrh) that detailed symptoms should have been given. If they have been afflicted all winter, the labor required to "doctor" them would be discouraging. There is no sure remedy, as roup is contagious and each fowl must be handled daily. It will pay to disinfect, get rid of the birds, and procure healthy ones.

Goslings.—J. C., Ridgely, Maryland, writes: "Please inform me what ails goslings that are weak. They are three or four weeks old, eat, but get weak and die."

REPLY:—Mode of feeding should have been mentioned. It is possible that they are overfed, probably on corn-meal, and are kept in damp quarters. If they are on grass they will secure their food, but may be given a mess of cooked potatoes thickened with bran twice daily for a while, then once a day. Keep [illegible] dry quarters at night.



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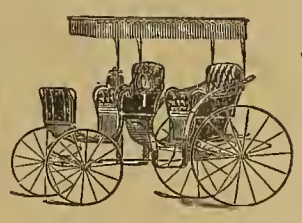

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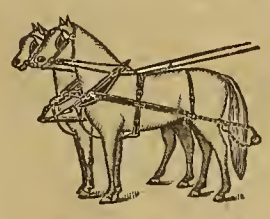

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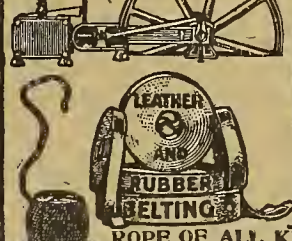

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QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Sorghum-syrup.—E. L. F., Placerville, Cal. Request the Secretary of Agriculture, Washington, D. C., to send you Farmers' Bulletin No. 90, The Manufacture of Sorghum-Syrup.

Worms in Furniture.—J. M. V., writes: "A little black worm is working in my furniture. It is about one fourth of an inch long and about as big around as a pin-head. It works just like the worms in hickory wood. What will kill them?"

REPLY:—Fumigate the wood with benzine, or place the infested furniture in a room that can be tightly closed, and expose it for twenty-four hours to the vapor of bisulphid of carbon. Simply pour the liquid in a shallow dish and close up the room. The liquid will soon evaporate and the vapor will kill all the insects it reaches. Stop up the holes in the furniture with gum and gelatin, and apply a good resin varnish.

Sowing Clover in Corn.—M. J. R., Nelson, Kan., writes: "Would I be reasonably sure of getting a stand of clover by sowing seed in a cornfield about the time of laying corn by? If so, what is the best variety to sow on land rather wet and clay soil? I want to have it for hog-pasture."

REPLY:—Sometimes a good stand of clover can be secured by sowing seed in the corn. The outcome will depend on the season. If the fall is dry the clover will fail or make an uneven stand. As you need the field for hog-pasture, better sow rye and timothy in the corn, and sow common red clover the following spring. Then cut the rye for hay or pasture it off.

Stone Drains.—M. J. B., Fairbanks, Mo., writes: "I am thinking about draining some land by this method: Dig a ditch about three feet wide and three or four feet deep, fill the ditch half full of stones, cover the stones with a layer of straw, then fill up with soil. Do you think it would drain if there is a good fall?"

REPLY:—Drains are made by placing a row of stones along each side of the bottom of the ditch, a row of broad, flat stones over these, and then filling up the ditch by your plan. Good drains can be made in this way, but better ones are made of tile, which requires a much narrower ditch and saves labor in digging. Count up the cost of each and decide according to the circumstances.

Cheapest Power for Pumping Irrigation-water.—J. I., Rancher, Mont., writes: "What is the best and most economical method of raising water about ten feet, from an arm of water backing up from a river? I don't think a windmill will do. Those I have seen don't pump water enough for four acres. I wish to irrigate from fifty to eighty acres."

REPLY:—The most economical method for you to select will depend on all the circumstances. Windmills will raise the water, if you are favorably located, provided you get several large ones. Under some circumstances a gasolene-engine pumping plant gives the best results. Possibly you can get power from a current-wheel on the river. Write to manufacturers of windmills, pumping plants and gasolene engines and get their estimates of prices for comparison.

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Probably a Case of Chronic Catarrh.—E. W. Q., Pomeroy, Ohio. What you describe appears to be a case of chronic catarrh. If you can keep your cow in a good pasture, she will, not at once, but gradually, improve as soon as the weather becomes settled and warmer; and if then the weather will remain favorable for a sufficient length of time, complete recovery may be effected.

Refuses to Eat Immediately After a Long Drive.—M. W. B., Stoughton, Mass. Your horse appears to be a sensible animal in so far as he refuses to eat immediately after a long drive, and does not consume his meal until he has been two hours in the stable. It seems to me, whatever trouble there may be, it will disappear if you keep your horse on a somewhat lighter diet (feed a little less oats), substitute for the occasional meal of shorts a bran-mash, give the horse his breakfast two hours before you hitch up for a drive of thirty miles, rest the horse awhile after the first fifteen miles, and offer him a very light meal of hay and a little oats, not to exceed two quarts, and water as often as necessary and opportunity allows. All your other questions are sufficiently answered in the above.

Bad Breath.—M. F., Antwerp, Ohio. A bad or bad-smelling breath and milk of a cow may be due to various causes; so, for instance, to unsuitable, spoiled, rotten, decayed and rank-smelling admixtures to, or substances contained in, the food, but also to other causes. At any rate, that one statement by itself alone is not sufficient to make a diagnosis or to form an opinion.

Possibly an Actinomycom in the Bone.—A. G. B., Chesterfield, Mass. If the hard swelling of the size of a hen's egg on the lower jaw of your heifer is immovable, and proceeding from the bone, it may be an actinomycom, which has its seat in the jaw-bone. If such is the case it cannot be removed by the usual means. But if you feel like it you may test on it (as it surely appears to be a very suitable case, and of not too long standing) the iodide of potassium treatment, so much praised and advertised a few years ago. Still, if you do, be not too sanguine of success. Such an actinomycom affects neither milk nor meat, at least not so long as the animal does not receive any medicines capable of pervading the system and becoming injurious to health.

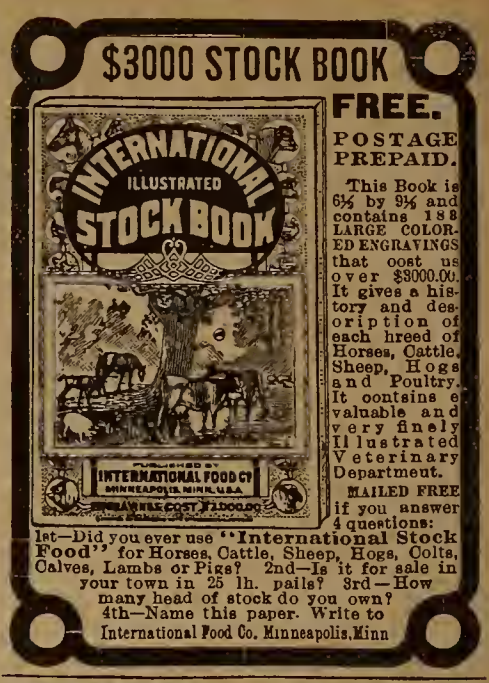
Garget—Obstructions in Cow's Teats.—C. P., Crystal Falls, Mich. Any use of milking-tubes is dangerous and apt to produce garget, and thus to cause the ruin of that quarter of the udder to which the teat belongs, unless the milking-tubes are not only kept perfectly clean, but also reliably sterilized before each insertion; and even if this is scrupulously attended to it is difficult to get all the milk through a milking-tube. Therefore it is far better, wherever there is any possibility, to remove milk and obstructions by frequent and vigorous milking. If the obstructions, as is usually the case, consist in clots of coagulated casein, a persevering milker will in nearly every case succeed in breaking them up and milking them out, provided, of course, no induration has as yet been produced. The trouble will be ended as soon as the obstructions—the clots—are removed, but not before. Such obstructions, no matter whether clots or indurated nodules, can never be removed by milking-tubes.

Knees Bending Forward.—C. C. F., Fair Haven, Vt. When you say your horse is "cocked kneed" you probably mean that the fore knees of your horse bend or extend too far forward beyond the perpendicular line. If such is the case it may be due to one of two different conditions: First, to contracted flexor tendons. In this case the pastern-joints will be too straight or too perpendicular, and there will be danger of a steadily increasing contraction, so that finally the horse will become crippled and walk on his toes. After all traces of inflammation in the contracted tendons have disappeared there is a possibility of straightening the legs by performing a surgical operation, known by the name of tenotomy. But if your horse is thus affected in both fore legs, the operation can be performed on only one leg at a time, and not on the other leg until the cut tendon or tendons of the first leg have not only become firmly united, but are also strong enough to support the weight of the animal. This will take several months. Then, after the contracted tendon or tendons of the other leg have been cut, it will take just as long again until the horse is able to take any exercise. Secondly, the bending forward of the knees may be due to a displacement of a portion of the angles belonging to the shoulder and the elbow-joints to the knee-joints. In this case the pastern-joints, if anything, will be too soft, and the pasterns be too slanting instead of being too straight or too perpendicular. If this is the case nothing can be done; but this bending forward of the knees will not disqualify the horse for any ordinary work. It may be called abnormal, but it is not morbid, and will not get any worse. It is true it will lessen the market value of the horse, but it will never cripple him like the contracted tendons, and the horse will not be apt to stumble, like in the other case.

Distemper(?) of Cats.—M. M. G., Ada, Ohio. The term "distemper," without any qualification or any description of symptoms, is really nothing more nor less than a synonym of the term "disease," and therefore may be applied to any ailment or disease. Perhaps you mean to signify with it an infectious disease of cats, pathologically identical with a disease of dogs, which, on account of its frequent occurrence, is commonly called "dog distemper." In cats, as well as in dogs, this disease is caused by a pathogenic micro-organism, and as the morbid process seems to be able to develop in almost any part of the body, it often presents a great variety of frequently complicated symptoms. So far a specific treatment is not known, and unless it be in the first or initial stage of the disease, or before the morbid process has become localized, a treatment applicable to all cases is out of the question. Excepting, perhaps, in the initial stage the treatment must be a symptomatic one, and be dictated by the localizations of the morbid process. So, for instance, if the latter has its principal seat in the lungs, expectorantia will be indicated; if in the intestines, small doses of calomel will be of advantage. Consequently, it is impossible to delineate a treatment where no symptoms whatever are given. Only during the first stage an emetic, if administered in time, will often bring the whole morbid process to a stop, and thus effect a speedy recovery. One of the best emetics in such a case is powdered white hellebore (Veratrum album). The dose for cats is, according to the size of the animal, from one half grain to one grain. It is best administered by mixing it with a little syrup and smearing it on a fore leg or on any other part of the body of the cat where it can conveniently be licked off. If the cat should not vomit in about twenty or twenty-five minutes a second dose may be given. If the cat is too sick to show any inclination to lick off the medicine it is most likely past recovery.

Attacks of Colic.—C. B., Cowles, Neb. Your horse suffers from repeated attacks of colic. The water itself has nothing to do with it, but the history of the case indicates that the horse must have picked up somewhere the brood of a worm, known as Sclerostomum equinum. This worm passes its immature stage in some of the branches of the posterior aorta, but particularly in a branch known as the anterior mesenteric artery—a short but strong branch which almost immediately divides into twenty odd branches and furnishes the blood to nearly all the intestines, but especially to the small intestines and to the colon and caecum. As soon as this worm approaches maturity it begins to migrate through the walls of the smaller arteries (through some branch of the anterior mesenteric) into an intestine. By doing this it often creates considerable disorder in the blood supply to the intestines, and if an intestine is deprived of blood, even if only temporarily, that intestine ceases to perform its functions. If the circulation, and thereby the functions, is soon restored the animal recovers, as a rule, in a short time; but if not, the attack of colic will have a fatal termination. In other cases these worms, especially if penetrating the walls of a larger artery, will thereby cause a fatal hemorrhage and the horse will die. As a rule the subsequent attacks will be the more dangerous the more numerous the attacks that have preceded. From this brief explanation you will see that since the worms are inside the anterior mesenteric artery the same are out of reach of any medicines; and, in fact, medicines are as good as worthless against these attacks of colic. I go that far even to say that more horses suffering from this kind of colic die of medication than of the colic. All you can do is to see to it that your horse is regularly fed, that no sudden changes in the circulation will be produced by feeding your horse a heavy meal either immediately before nor immediately after hard work, and that the same will be kept comfortable in a place in which he has plenty of bedding and cannot hurt himself when an attack is on. He may roll then as much as he pleases. Since the worms inside of the horse will emigrate when their time comes, it is of the utmost importance to see to it that no new worm-brood will be introduced by allowing the horse to drink any water of ditches and stagnant pools. The only water that is safe is water freshly drawn from a deep well or from a good spring. The most dangerous water is the drainage of a barn-yard or of a horse-pasture. The mature worms pass off with the excrements in the shape of so-called pin-worms. If your horse should get a very severe attack, and you think that medicine will be required, you will be doing best by calling on a veterinarian.

Thrush.—N. G. T., Norwich, Vt. Thrush may be defined as a degenerate or morbid condition of the frog and sole, but principally of the former, which prevents a production of healthy or normal horn-cells, or causes a fetid decomposition not only of the new horn-cells before they are completed, but also of the existing born tissue. The morbid process, therefore, is principally a destructive one. The symptoms, seldom accompanied with lameness simply because horn tissue is destitute of nerves, consist in the morbid appearance and fetid smell caused by the degenerative and destructive process. The main causes, in a majority of cases at least, consist in neglect and filth. Horses, especially if the shoes are allowed to stay on too long, so that thereby the frog is prevented from performing its allotted functions, if kept or compelled to stand in a filthy stall or yard, or, in other words, in decomposing filth and manure, no matter where, are apt to contract thrush, and that the sooner the less frequently the soles and frogs of their hoofs are cleaned and allowed to become dry. Frequent or repeated packing, stuffing or poulticing of the hoofs, and pasturing horses on wet or swampy land, or working them for some length of time or repeatedly on sloppy and muddy roads or in water, without cleaning the frogs and soles at least once a day, must also be considered as a frequent auxiliary source of thrush. Thrush, therefore, although infectious to a certain degree, is easily prevented, and unless inveterate, or the process of destruction has been allowed to become very extensive and malignant, it can also be cured without much difficulty. The treatment may be as follows: First, all horn of frog or sole that is loose or diseased must be cut away with a sharp hoof-knife, and frog and sole must be thoroughly cleaned. This done, one man must lift up the diseased foot, as if for shoeing, in such a way that frog and sole look upward, but that the toe part of the hoof is enough lower than the heel part to compel any fluid poured on the posterior part of the frog to run off over the toe. Another man may then with safety—that is, without bringing it into contact with anything but frog and sole—pour some pure carbolic acid into all the clefts and crevices of the frog and onto all the diseased parts of the sole. This done, the horse must be taken into a stall with a clean, dry and level floor, and be kept in that stall or on a clean, dry floor until new and sound horn has coated all the formerly diseased surfaces. If the morbid process is not deep-seated or extensive, and the operation is performed as it should be, one application of the carbolic acid will probably be sufficient. If not, another one may be made a day or two later. The treatment of very old, inveterate or malignant cases is often very tedious, and is best intrusted to a competent veterinarian. As such a case I would consider one in which the whole frog, and perhaps, also, a part of the sole, has been destroyed. In such cases daily applications of a concentrated solution of nitrate of lead, combined with artificial pressure upon sole and frog, after [illegible] the loose and diseased horn has been remo[illegible] give good results, provided scrupulous [illegible] is maintained.



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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

CURRENT COMMENT

Agricultural Colleges The topic for June suggested by National Lecturer Bachelder is, "Why are our agricultural colleges entitled to the support and patronage of farmers, and in what way does training at an agricultural college benefit a young farmer?"

Supplementary topic—"In what way can the work of our experiment stations be made more effective as an educational factor?"

Election of Senators by Direct Vote of the People At the last meeting of the Ohio State Grange the following notable resolution was passed: "Resolved, That the executive committee of the state grange be instructed to select some measure of present vital importance to the farmers of Ohio, and the grange pledges its best efforts to secure the enactment of such measure into law."

The committee decided to urge the concentrated effort of farmers to secure an amendment to the Constitution providing for the election of United States senators by direct vote. The committee suggested the following plan of action: "Get each subordinate and Pomona grange in Ohio at once to pass strong resolutions favoring the proposed change, and appoint a nonpartizan committee of two or more representative men in each county in Ohio to seek a personal interview with candidates for the General Assembly, in all parties, for the purpose of securing a pledge that if elected they will work and vote for a memorial to Congress from the Legislature, asking for a constitutional convention which shall submit for ratification by the various legislatures of the Union a constitutional amendment providing for a direct vote for United States senators. Also, that they will not support any man for United States senator who is not in sympathy with this much-needed reform."

The national and various state granges have repeatedly asked for this reform. Ohio is the first state thus far to make this question the paramount issue.

Department of Superintendence The proceedings of the Department of Superintendence of the National Educational Association, a pamphlet of one hundred and sixty-nine pages, is replete with good papers and discussions. "The Gospel of Work," by E. G. Cooley, Superintendent, Chicago, Ill.; "The Use and Control of Examinations," by President Arthur T. Hadley, of Yale; "A Standard Course of Study," by R. G. Boone, of Cincinnati, together with the discussions thereon, are notable features. The round-table discussion on "The Consolidation of Schools and the Transportation of Pupils," under the leader, Hon. L. D. Bonebrake, state superintendent of schools of Ohio, is of especial interest to farmers. The publications of the National Educational Association are of great value to those farmers who would keep abreast of the educational thought and work. Price twenty-five cents.

A Suggestion Inasmuch as there is no question of more vital importance to the rural communities than the school question, why should not each lecturer be required to prepare at least one lecture on some phase of the school problem? Institute lecturers have done noble work in creating favorable sentiment for many proposed reforms. In many neighborhoods the institute is the one event of the year. It is looked forward to with as much eager expectation as any holiday, and the words of the speaker are drank in thirstily. They are the basis of many a fireside and after-church conversation. To such communities a frank and helpful discussion of the school problem would be of incalculable benefit. Farmers have a dull sense of defeat and failure in the management of their schools; but how to remedy them, what method to pursue that will bring real reform, not useless agitation and wasted effort, is a matter of concern to them. Let our lecturers take up this matter and a decided benefit will follow.

Different educational associations are discussing the feasibility of doing aggressive work in the rural communities. They propose sending out lecturers and holding institutes, in order to arouse and crystallize the sentiment in favor of better rural schools. All are agreed that the rural-school problem is the greatest educational problem of the time. If the state boards of agriculture in the various states would show a disposition to co-operate with the state school-boards doubtless splendid results would follow.

We must begin, and at once, an aggressive, systematic campaign for better schools. The money we spend annually on our rural schools, if wisely handled, would place a high-school education within reach of every child desiring such advantages. Why not avail ourselves of the privileges open to us?

Origin of the Grange L. M. B., of Virginia, asks for an account of the origin of the grange. The national lecturer sends the following history:

"The Order of the Patrons of Husbandry originated in the mind of O. H. Kelley, a man of New England birth, who went to Minnesota in his early manhood and became a farmer in that section of the country.

"In 1864 he was appointed a clerk in the Department of Agriculture at Washington. Two years later, in January, 1866, Mr. Kelley was commissioned by Hon. Isaac Newton, Commissioner of Agriculture, to visit the Southern states, lately in hostility to the government, for the purpose of obtaining statistical and other information in regard to the condition of the South, and report the same to the Department at Washington.

"It was while traveling in the South in obedience to these instructions that the thought of a secret society of agriculturists, for the protection and advancement of their interests, and as an element to restore kindly feelings among the people, first occurred to Mr. Kelley.

"The idea of giving women full membership in the proposed order originated with Miss Carrie A. Hall, of Boston, Mass., a niece of Mr. Kelley, to whom he had imparted his views of the new association after his return from the South. In the full formation of the order six other men were directly associated with Mr. Kelley—namely, William Saunders, of the Department of Agriculture, who, next to Mr. Kelley, did most in originating the order, and Rev. A. B. Grosh, of the same department; William M. Ireland, of the Post-office Department; Rev. John Trimble and J. R. Thompson, of the Treasury Department, and F. M. McDowell, a pomologist, of Wayne, N. Y.—all of whom, with one exception, were born upon a farm.

"These seven men were the founders of the order, and for nearly two years they labored with great energy, and with a faith and zeal amounting almost to inspiration, until, with the assistance of friends who became interested in the plan, they completed a well-devised scheme of organization, based upon a ritual of four degrees for men and four for women, which is unsurpassed in the English language for originality of thought, purity of sentiment and beauty of diction.

"Having formed a constitution to govern the order to which this ritual was adapted, these men met on the fourth day of December, 1867, and constituted themselves the National Grange of the Patrons of Husbandry, with William Saunders as master, J. R. Thompson, lecturer, William M. Ireland, treasurer, and O. H. Kelley, secretary. The remaining offices for obvious reasons were left vacant.

"The little brown building in which the organization was effected was at that time the office of Mr. Saunders, and stood embowered with the trees in the gardens of the Agricultural Department on the corner of Four-and-a-half Street and Missouri Avenue. Later the late Colonel Aiken, of South Carolina, and other interested members of the order made vigorous efforts to have the government preserve this historic building, but they were unsuccessful in their efforts.

"The first subordinate grange was organized in Washington, D. C., the eighth day of January, 1868, as a school of instruction, with William M. Ireland as master.

"The first dispensation for a grange was granted at Harrisburg, Pa., the fourth day of April, 1868, but the first regular subordinate grange to which a charter was issued was organized at Fredonia, N. Y., the sixteenth day of April, 1868.

"The first state grange, that of Minnesota, was organized the twenty-second day of February, 1869. The new order made slow progress up to 1872, only 257 granges having been organized in the entire country. During the year 1872 1,105 were organized and the order had an existence in twenty-two states.

"The first meeting of the National Grange as a delegate body was held at Georgetown, D. C., the eighth day of January, 1873, with six of the founders of the order and seventeen delegates present, representing eleven states; six of the delegates were masters of state granges and the remainder were deputies in the order. In addition to these, four women were present; namely, Miss Carrie A. Hall, Mrs. O. H. Kelley, Mrs. D. W. Adams and Mrs. J. C. Abbott. The total number of granges organized previous to this meeting was 1,362. Nearly 30,000 charters have been issued to January 1, 1900."

This pamphlet was issued by authority of the National Grange. Additional copies can be had free by addressing N. J. Bachelder, Lecturer, Concord, N. H.

THE INFLUENCE OF THE GRANGE

In a recent address Major King said:

"Any organization that has for its object the educational advancement, social refinement and purity of its members is of incalculable benefit to mankind. The measureless value of the Order of Patrons of Husbandry is best evidenced by the vast work it has already accomplished in elevating the character and increasing the influence of its members.

"One of the prominent features of our order is that of fraternity, of earnest endeavor to suppress sectional prejudices and promote peace and harmony. The history of the grange shows that it has done more to heal sectional dissensions than all other organizations combined. This organization was formed soon after the cyclone of civil war had swept remorselessly over the Southern land. It went forth, as it were, 'with healing on its wings.' When the representatives of the great agricultural interests of the nation meet at the annual reunions of our order they do not meet as estranged brothers and sisters, but as members of one great family, loyal to the principle of love, peace and good-will. These annual gatherings of Patrons from the widely separated states and territories of the Union have been fraught with best results, cementing as they do the indissoluble ties of fraternity and love. Costly as these reunions have been the benefits to the cause of agriculture and human progress have been immeasurably greater. The principle of fraternity and association is one that is needed in home, neighborhood, state and national affairs. In the grange we are linked together by a common interest, in a common cause, for the common good.

"The possibilities of our order are comparatively boundless. The work that has been accomplished since its organization has been, as it were, but a primary school, while the broad field for more thorough educational work has continued to widen before us as we have moved forward. No other occupation or calling offers so wide a field of healthful, intellectual development as the farm. The increased attendance at the agricultural colleges in those states and territories that have the largest representation in the National Grange is an indication that the Order of Patrons of Husbandry is not without influence for lasting good. The order is designed to build up and make more attractive the great basic industry of agriculture. The grange has come to stay. If so much has already been accomplished in the comparatively brief period of its existence, during which time it has been seriously weakened by partizan political action, what may not be expected when the educational feature shall be fully developed as contemplated by the founders of the order?

"The grange as a great force in guiding the agricultural interests of the nation is becoming a recognized fact. The educational idea is a true one. It is this which will make all things possible to the sons and daughters of the soil. With the brain and hand thoroughly trained in the line of the most important of all occupations—that of a farmer—with a firm adherence to the imperishable principles of our order as enunciated in our 'Declaration of Purposes,' nothing can hinder the mental, moral, social and material advancement of the only farmers' organization that is destined to be perpetual."

I say that man was made to grow, not stop;
That help he needed once and needs no more,
Having grown but an inch by, is withdrawn:
For he hath new needs, and new helps to these.
—Browning.

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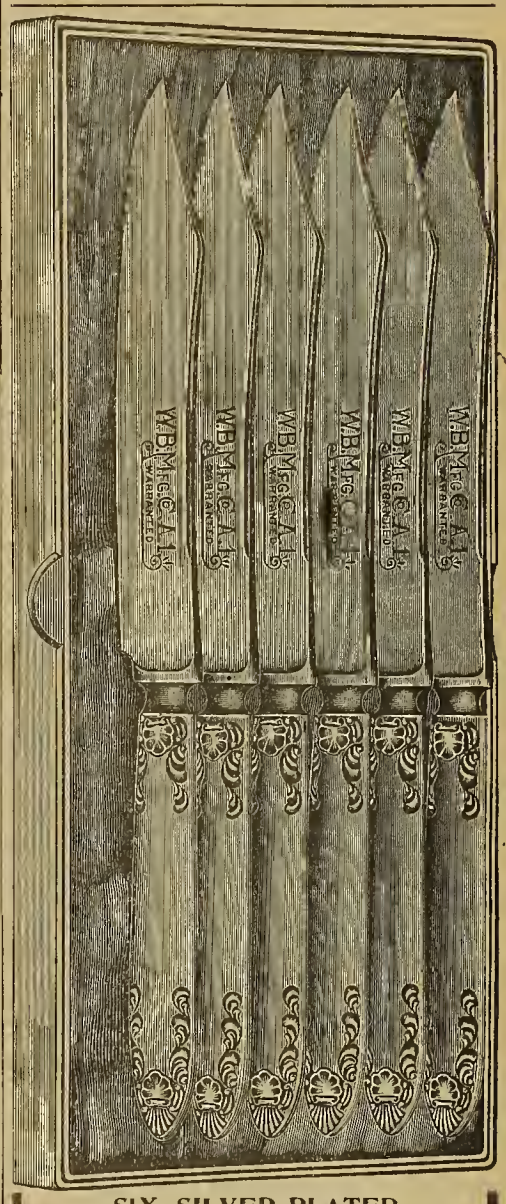

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The Passing of Old-time Hospitality

By MRS. CLARKE HARDY

OFTEN we hear elderly people regretfully remark that real, old-time hospitality is passing away, and that a code of social observance and formal ethics has entirely supplanted the true spirit of friendliness and neighborliness that prompted the easy sociability and unceremonious visiting of "ye olden times."

They say that in those good old days people could go visiting sans ceremonie and whenever the spirit moved them, with a reasonable assurance of a cordial welcome and a hearty entreaty to stay and make a "real good, old-fashioned visit."

Then, we are told, the unexpected was always expected, and the uninvited guest was not a calamity, and the entertaining of one's friends was not made the complex, expensive and nerve-racking social feature that it is to-day. For be it known that visiting and entertaining one's friends in those days was prompted by friendliness and good-fellowship, and the desire for the social companionship instead of social distinction.

And so we cannot but sympathize with the aged, who turn their eyes regretfully backward to the easy, open-handed hospitality of the past; for now, O tempora! O mores! we may not go visiting unless we are especially invited; then the time of our arrival is intimated and the length of our visit is limited, and to overstay that limit is to make manifest not only our ignorance, but our ill-breeding.

The burdens of this our twentieth-century civilization rest heavily upon us. And we who are young and strong and vigorous, who would keep step with the procession, have learned that we must husband our time. We know that every hour of the day and every moment of the hour has its allotted task, and that we must redeem the time with systematic precision. And though our hearts may turn with longing to the sweet placidity and the delightful leisure of the old regime, we know that it is not for us, and, tempora mutantur, we must needs adapt ourselves to the change in time and manner.

We who are toilers upon the highways and in the byways of life; who must bear the heat and the burden of the day; who are hurried and harried with the duties and perplexities of life, have yet the worldy wisdom to see that the old-time free-and-easy, go-as-you-please visiting of older days could not obtain at the present time, and that certain social restrictions and formal observances are the necessity of the times.

If the lilies of the field—those who toil not, neither do they spin—must hedge themselves about with a code of social restrictions, that they may find time for the dispensing of hospitality in their own way, how much more so may we, who must scramble for the loaves and the fishes and the wherewithal with which we are to be clothed.

It is not that the spirit of hospitality is dead in our hearts, but rather that we may be given time to keep it alive, and to dispense it in a proper and agreeable time and manner, that we, the toilers, must safeguard our time against the inroads of the perpetual and omnipresent visitor, who would make us a convenience simply for his own pleasure.

The woman of to-day has larger interests and a broader field of action than the woman of even fifty years ago, and her privileges increase her responsibilities. Quite often she is housekeeper, home-maker and business woman combined, and she has duties and obligations which cannot be neglected or ignored, even for the entertainment of her dearest and most intimate friends. And thus it comes about that what may seem to elderly people as a deplorable lack of hospitality is in reality only a prudent conservation of our time and a systematizing of our social pleasures and duties.

And so the city woman elects to have her afternoons "at home," and to give her luncheons and her dinners and her teas, that by so doing she may discharge her social obligations and have a little time she can call her own, and a little season of leisure for her home and her family. She may not say to her friends, "Come any time you please and stay as long as you will," lest other and more pressing duties or prior engagements should cause their visit to be not only a serious inconvenience to herself, but anything but a pleasure to them; and so she elects to send her friends a special invitation to come to her home on a certain day, and to stay for a stated time; and when they arrive she is prepared to receive them and to entertain them in the manner that will give them the most pleasure, and at the same time with the consciousness that their visit was desired and welcome.

The country woman may not be quite so conventional. She may not have her afternoon at-homes, as that would be considered as too formal in a country neighborhood. But she may have her afternoon "companies," and she may give her afternoon teas and her dinners, and she will on these occasions be much better prepared to give pleasure to her friends and to enjoy their society than she would an unexpected visit when her heart and hands were full of other duties.

Country women are proverbially hospitable, and as a rule they will gladly welcome their city friends, even in the busy season, for a little friendly visit, even though their coming is unexpected; but quite often the pleasure of all concerned would be greatly heightened if the guests had but awaited a special invitation at some more convenient time, or had even given notice of their intended visit. And right here I am willing to say that I have known of people foisting themselves upon their country acquaintances for a long stay and at a most inconvenient time simply because "it was so nice in the country in the summer-time," and with no thought of ever returning the favor by an invitation to their home at any season of the year.

But country women are not only hospitable, but resourceful; and realizing that they have not the convenience of the city markets, they are usually prepared for the emergency of unexpected company with a well-filled larder, and many a city visitor can testify to the cordial welcome they have received in the home of the busy but hospitable woman on the farm.

And so, although the free and unconventional visiting of bygone days is passing away, we may still cherish in our hearts the true spirit of hospitality; and, too, we may add much to the beauty and the sweetness of life by reaching out the kindly, welcoming hand and drawing into our hearts and homes the unexpected guest—the friend who crosses our pathway on the voyage of life

"As ships that pass in the night
And hail each other in passing."

"WHEN WE WERE MARRIED"

The country girl in moderate circumstances has much advantage over the city girl in moderate circumstances in her opportunity for an artistic wedding. If the city girl has flowers it must be at some expense, while the average country girl may draw from all nature—the woods, the fields, the home garden, and even the orchard, her conservatory. The country home in these days is large and roomy, and while not richly is well furnished, making an excellent background for decorations, and also making it convenient to entertain comfortably a goodly number of guests.

One of the prettiest weddings is the outdoor wedding. This can, however, only be successful when the weather is favorable and the sky is bright and clear.

A large tree will make a good background, but in springtime the apple or other flowering trees are more effective. A large floral rug may be made for the bridal couple to stand upon. Suppose that Alsike clover is the chosen flower; this is the clover very distinctly pink and white variegated, and not either the dull, greenish-white or the neutral pink clover. It is bright and beautiful in color and is found in very many farming districts.

To make the rug take a large piece of gunny-sacking or burlap; a binder-twine sack will make a fair-sized rug, but two put together lengthwise would be better. Cover this with ferns, running pine, asparagus or any pretty greens to be had, sewing it in place with thread or string. After the green is placed then scatter clover-flowers over the entire surface of the rug and fasten them in place invisibly in the same way. A very handsome rug has green ferns and clover for its center, and roses for a border some nine inches in depth. The tree may be festooned with ropes of clover and roses, with green for a background, and over the bridal couple the inevitable floral bell may peal out its joyous wedding chimes "as merry as a wedding-bell."

Open booths may be prepared for the guests, with plenty of rustic seats, the backs and arms decorated with festoons of flowers. A square might be virtually fenced in with festoons of flowers, showing the place designated for the guests. Of course, such a decoration could not be save where a profusion of green and flowers are available.

The kind of flowers used must of necessity depend upon those in season. There are few things green more useful than asparagus-tops, for they hold their apparent freshness for a long time. Lilies and roses make the loveliest decorations, and if the wedding was in June the large, white Candidum lilies are largely in evidence in many places. These with simple green, even if in a less abundance, would be charming and elegant in a marked degree. Festoons of green could be made and the lilies could be reserved for jardinieres; or, lacking these, common, tall jars with broad mouths may be used. An indoor wedding with the fireplace banked with ferns and flanked on either side by tall jars of stately white lilies would make a background fitting for the wealthiest bride. A single stock of these lilies with suitable green would make a bouquet for the bride; but great care must needs be taken not to get the pollen upon the gown or gloves, as it is in such abundance it is very easily displaced. Festoons of green down the staircase and about the room, centering over the place where the bridal couple are to stand, and culminating in a floral bell above them, would be a suitable and beautiful decoration. A large rug should be placed in front of the fernbank flanked with lilies for the bridal pair to stand upon, and if the rug could have a floral border it would add to its appropriateness.

The bride herself being the sweetest flower of all should have consideration, and it is not always the most expensively gowned bride who proves the most artistic.

We read of white satin and point-lace, but they are not commonly seen save among the wealthy, who really form but a very small proportion of the people. The "masses" are in moderate circumstances, and these are the ones to be considered. If one wants silk of some sort, the soft, clinging India silks are pretty and make up effectively with lace and chiffon; such a gown could be worn upon festive occasions afterward.

For the country bride there are many sheer cotton materials which may be had and made into artistic gowns. Sheer white organdie or Swiss muslin, costing perhaps seventy-five cents a yard, makes up very nicely with lace, and a very effective way for trimming such a gown is to applique lace insertion upon it in true lover's-knots, sewing firmly and cutting out the material underneath. The true rule of refinement is to have the entire wardrobe as fine as possible rather than of coarser material and more showy trimming.

The trousseau of to-day is not as elaborate as formerly, when a girl made up clothing enough to last for years. The fashion even in lingerie changes so rapidly that it is a good plan to make up only enough for perhaps a year's use and then renew it. The gowns, of course, will need renewing oftener, but the country bride does not want, and cannot use, the clothes that a society woman could. The country bride needs serviceable shoes and gowns, with plenty of cotton work gowns and aprons. Her wardrobe may be exquisitely dainty, but it should be suitable. Plenty of shirt-waists for afternoon wear and two good cloth gowns will do very well. A tailor-made gown is always serviceable and suited to most occasions, and one such gown would be enough for the country bride.

It seems fitting that a country wedding should be in the morning, and thus the wedding feast would be a breakfast.

A menu for a wedding breakfast is this:

Clam Bouillon in Cups with Whipped Cream.
Creamed Sweetbreads in Cases.
Chicken Sandwiches. Cheese-fingers.
Lettuce and Tomato Salad. Salmon Salad.
Rolled Bread and Butter Tied with White Ribbons.
Jellies. Frozen Red Raspberries.
Fancy Cakes. Bonbons. Coffee.

It is not the amount of formality that makes the wedding guests joyful; it is rather the kindly good-will and loving thoughtfulness of host and hostess to guests and of guests to bride and groom. Weddings are apt to be a little tearful, but the tears are not wholly sad ones. Some tears are expressive of the deepest joy, and it is meet that the bride and groom should feel the solemnity of the occasion, than which nothing is more solemnly sweet save death itself, and the union of two hearts and lives really does signify the death of self and the living a new life for another.

May the God who is love bless both in the glad new life they are living.

ROSE SEELYE-MILLER.

SHIRT-WAISTS

There is perhaps no article of woman's dress that affords more comfort than a shirt-waist, and for once Dame Fashion is sensible, and year after year the shirt-waist, with only some slight changes, remains fashionable. The coming season promises to be as great a shirt-waist season as any previous one. I confess that all women do not look equally well in a shirt-waist, but there is no need of any one looking "slouchy" if she will see that her shirt-waist is properly fitted and properly put on. There have been various devices tried to make the waist stay down and the figure incased in it look trim and neat. A young lady of my acquaintance who is just home from New York tells me that she learned while there a plan that solves the difficulty.

Make your waist with a belt long enough to reach around the waist, with the fashionable dip in front. Stitch this belt across the back after it is gathered to the figure at the waist-line; fasten the belt securely to the under-arm seams, leaving the fronts of the waist loose, to be arranged after the waist is on and the belt fastened. Put a strong loop on the belt about an inch from the middle of the back on each side, with hooks on the skirt-band to correspond. Sew two loops of inch-wide ribbon to the bottom of the corset, one on either side, just at the end of the eyelets. After you put on your shirt-waist bring the belt around and pin it fast to the corset in front; then with two small safety-pins pin the belt of your shirt-waist in the back to the loops of ribbon on your corset, and your waist will fit smoothly in the back instead of "hunching" up and making you look round-shouldered. Now smooth the waist down well over the hips and pin it to the belt on either side, then lay the front in plaits to suit yourself, put on your skirts and you will have the comfort of knowing that you look tidy and trim as well as feel comfortable.

The next thing about a shirt-waist is to have it well laundered. If the waist is colored it should be washed in cold water, using the best laundry-soap; when it is clean rinse it in cold water, and do not use hot starch. I prefer the common lump laundry-starch to any of the patent powdered starch, as some of them, while very nice for white goods, contain ingredients that will fade colored goods. Make a thick boiled starch, and then thin it to the consistency desired with cold water, stirring it all the time and straining it if necessary. Dip the waist in the starch, wring, and hang it where it will dry quickly. Shirt-waists are cooler and more comfortable if they are not made very stiff. I know some young ladies who do not have any starch put in their pique waists, preferring them soft, although they do not keep clean as long as when starched.

After the waists are thoroughly dry sprinkle them with cold water until moderately damp. If the collar-band, cuffs and front plait of the waist are desired stiffer, dip these parts in cold, raw starch, roll the waists up tightly for half an hour and they are ready for ironing. If a shirt-waist board is used for ironing, the sleeves may be ironed without any creases, as they will slip on the board.

Wash-silk waists are very satisfactory for summer wear especially, as they look well, are cool and with a little care launder beautifully. Be careful not to have the iron too hot, and they look best to be pressed on the wrong side or to lay a piece of thin organdie over the silk and press on that. They should be only very slightly damp when ironed.

MAIDA McL.

A CHAPTER ON HOME-TEACHING

All mothers of young children may well wish to live in a town that can boast of a good kindergarten, whether it be within the public school or outside of it. It is true beyond question that a kind of education is there acquired which if missed at this early period in life is at no time thereafter supplied.

Home-teaching cannot of necessity embrace the entire curriculum of a first-class kindergarten, yet if the mother be ingenious it can go a long way toward it. To make a place for this education—the kind that teaches the eye to observe and the hand to be skilful—the time for learning to read is now by the best educators wisely postponed, so that it is not unusual to find a kindergarten graduate of seven years who has not yet taken his first lesson in the art of reading. There are children, however, who will learn to read, and it is useless to fight against it. Books and papers in the hands of their elders awaken curiosity; so do their own blocks covered with letters

and pictures. The little mind, alert and active, must know what everything means.

Now, mothers, if you see that learning to read is inevitable, help the little ones along. It will prove as good as any other diversion if not overdone on your part. But do not, I beg of you, begin by teaching the letters. Letters are not only in themselves totally uninteresting and depressing characters, but are as unintelligible in the beginning to little children as if an enterprising fly had dipped his feet in printers' ink and walked for their benefit up and down, back and forth over the primer pages.

Common sense long ago sounded its bugle, mustered its forces and marched to the relief of the "innocents." Every good, up-to-date teacher knows that the old-fashioned A B C method of teaching children to read has long ago been abandoned in the schools, and were it not that within the past year I have known of its being perpetuated in the home upon some unfortunate little victims of my acquaintance this paper would not have been written.

Blocks, charts and first readers of the right sort go well together, one supplementing the other. Teach the word itself from the beginning, no matter how long it may be. If your little boy comes and asks what the word "elephant," "rhinoceros" or "hippopotamus" is, tell him at once; he will no doubt be able to find it for you at any time afterward, on any page where it is to be seen. The charts have interesting pictures illustrating the word to be taught. Teach the word in connection with the picture, or, better still, the familiar object which it represents. Show that the picture of a dog and the word "dog" both represent the real dog in sight. You will find a long word more easily learned than a short one, especially if it be the name of something that can be shown in the concrete.

After the child has become perfectly familiar with a few nouns teach him the small introductory and connecting words, so that he can read short sentences; but always be sure that the sentence is read with the correct expression, as herein lies the secret of good reading, whether from child or adult.

The sounds of the letters are useful in learning to read, because if the child knows that certain sounds are given to certain characters or combination of characters in a word, when he meets the same in a new word he knows what sounds are required, and can often pronounce it without assistance. I have found, nevertheless, that to teach by sound altogether makes poor spellers later on, when all the letters of the word spelled must appear in writing, whether sounded or not.

We are supposing hitherto that a very young child—perhaps from three to five years of age—has by his persistent questioning almost forced his mother to teach him to read. If, however, he be old enough to learn regularly, and home-teaching be still attempted, begin to teach both writing and spelling very soon after the reading is commenced. The new words learned in the reading-lesson may be used for the spelling next day.

A small, portable blackboard is almost a necessity to the home-teacher. Let each new word be accompanied by the object that it represents. If this is not possible, use a picture of it. Then write the word upon the blackboard, calling each letter of it by name as you write. Leave it there, and require the child to copy it many times.

Here, with no special point having been made of them, the letters are soon learned, not as abstract, meaningless characters, but in connection with words and without effort. Never allow the child to read or spell a word the meaning of which he does not understand, and do not permit oral spelling except from the slate or paper upon which the lesson has been previously written.

It is only in written words that spelling comes practically into use during life, and with all good spellers it is the eye, not the ear, that has been trained to observe. Too much care cannot be taken with reference to this important detail, as the habit of poor spelling is not only difficult to overcome, but a constant source of mortification to the child himself.

As the words in the lesson grow longer do not allow the separate syllables to be pronounced as they are spelled from the slate or paper. Syllables in themselves, like letters, are absolutely without meaning. Teach the child to divide the syllables by pauses only, pronouncing the word after the last one. Various devices are employed to secure naturalness of expression, which is the principal thing to be considered from first to last, and must not be lost sight of for even one day.

Other points could be mentioned and dwelt upon at greater length, but the chapter is already long enough to afford a fair outline of the course to be pursued in home-teaching by what may safely be called common-sense methods. By their use the old "hill difficulty," climbed for so many generations by little, tired feet, has been smoothed out into a level plane, and learning to read may now be accomplished with a hop, skip and jump.

LILLA A. WHITNEY.

GARDEN-SEEDS FOR CHILDREN

"You can take away everything else from a child," says that great, warm-hearted man Jacob Riis, "but you can't take away the love of beauty."

It is this love of beauty in the child's heart which responds so quickly to the flower; that the blossom really speaks to the child, not in words, to be sure, but in that voice which the psalmist tells us is "without speech or language." A three-year-old baby toddling in to his mother with his lap filled with buds stripped from her choicest rose-tree said, when the mother began to scold, "God made those buds for me!"

Without doubt God did think of the little children when he stored so much beauty away in bud and blossom; and surely there is no more exquisite joy in life than comes to us when as children we first discover the beauty of a new flower. How rich we were, kneeling in rapture at finding the hiding-place of the first shy violet, or smoothing the glossy, crimson buds of the great, spicy peonies, too splendid for a child to break, or wondering with thoughts of innocence over the gold of yellow dandelions and buttercups.

It is so easy to make a child happy with a few garden-seeds, a little plot of ground, a tool or two that he can call his own, and the return of patience, industry and order will be better than the interest on a bank account. There is such a fascination, too, in watching the mysterious way in which things grow. The legend is that George Washington was so interested in his mother's garden he pulled up her beans, thinking that by mistake they had come up the wrong way, and then turning them around planted them over again. There is a glow of delight for every boy in the "quick-running squash-vine," which gallops over the garden and fences and back again like mad; and even a hill of potatoes or a cabbage is wonderful when the child can watch its growth from day to day and consider that it is in a way the product of his own industry.

A year ago in Cleveland, through the social-settlement workers, packages of flower-seeds were sold to the children at a penny apiece in the overcrowded neighborhoods, believing that the cultivation of flowers would bring with it some idea of order and cleanliness. Flowers easily grown were selected, and a choice given of nine varieties—nasturtiums, four-o'clocks, morning-glories, coreopsis, larkspurs, zinnias, marigolds, bachelor's-buttons, candulas. Upon each package were printed suggestions for the child, and the teacher also gave talks upon the preparation of the soil, the effects of sunshine and shade and the proper times for watering. Fifty thousand packages of seeds were sold, bringing in enough to cover all expenses; three fourths of the plantings were successful; flower shows were held, and the children enthusiastic over the idea wish to try it another year. It is to be hoped that in a few years gardening may be adopted in connection with all of our schools, particularly in the country, where the grounds about the school-house, now so desolate and forbidding, could be made to blossom like the rose.

FRANCES BENNETT CALLAWAY.

RECEIPTS

MUSTARD PICKLES.—Soak in salt-water over night one quart each of large cucumbers and large tomatoes sliced, one quart of small cucumbers, two of small tomatoes, two of small onions, three heads of cauliflower and six large green peppers. Scald or steam all but the peppers until tender, then put in a large crock. Blend well twenty-four tablespoonfuls of English mustard, four cupfuls of sugar, one and one half cupfuls of flour and one ounce of turmeric. Add this to one gallon of boiling vinegar. Pour the hot liquid over the vegetables, stir, and cover. When cool they are ready for use. Cabbage may be used instead of cauliflower.

CURRANT WINE.—Put in a stone crock one quart of the strained juice of large red currants, two quarts of water and three pounds of white sugar. Cover tightly with a cloth and keep in a cool place one month. Strain and bottle. When one year old it is unequaled for medicinal purposes.

LEMON PIE WITH TWO CRUSTS.—The juice and grated rind of one lemon, one cupful of sugar, one cupful of water, one teaspoonful of corn-starch moistened in a little of the water, one slice of bread with crust removed, two well-beaten eggs and one eighth of a teaspoonful of salt. Blend in the order named and bake with two crusts, placing it where the heat is greatest on the bottom.

LEMON PIE WITH MERINGUE.—Stir one tablespoonful of corn-starch wet with a little cold water into one cupful of boiling water. When smooth add one cupful of sugar. Blend one small tablespoonful of butter, the yolks of two eggs and the grated rind of one lemon with one half of the juice. Add to the first mixture, and cook a little. Line a plate with pie-crust, and paint it with a little of the white of an egg; beat the rest of the white stiff and stir gently into the mixture. Cool, then pour it into the plate.

MERINGUE.—The beaten white of one egg, one tablespoonful of powdered sugar added gradually, and the juice of half a lemon. Cool the pie slightly after baking, spread the meringue, and return to the oven for two minutes.

PHILADELPHIA PIE.—Grate one apple and the rind of one lemon; add the beaten yolk of one egg, a little salt and one half cupful of sugar moistened with one third of a cupful of sweet milk. Bake with one crust. When cool cover with the meringue and set in the oven two minutes.

MERINGUE.—Beat the white of one egg stiff, then add gradually the two tablespoonfuls of powdered sugar and the juice of one lemon.

CARAMEL PUDDING.—To two cupfuls of scalding milk add two tablespoonfuls of corn-starch stirred smooth in a little cold milk. Cook a little, then add two well-beaten eggs and one fourth of a teaspoonful of salt. Put one cupful of sugar in a dry saucepan, stir till an even brown, then add the milk and eggs. Stir constantly until it melts and thickens. When cooked add one teaspoonful of vanilla and put in a mold. This may be served with whipped cream sweetened and flavored to taste.

HARRIETT A. LUSK.

"THE HONEST DOLLAR CLUB"

Women's societies are constantly ridiculed and satirized by the would-be wits of the sterner sex, and also by women themselves who have not the ambition to exert themselves for the betterment of society in general; but so far as my knowledge of women's clubs has reached, their object is usually a worthy one.

To be sure, there is such a thing as carrying a good thing to an extreme; but I wish to tell the readers of the FARM AND FIRESIDE of a woman's club of which I heartily approve.

It is a housekeeper's society, composed of twelve ladies, and known as the "Honest Dollar Club," each member of which is expected to furnish supper to the entire club once a year, the cost of which must not exceed one dollar; making twelve suppers a year, or one a month.

That a most substantial supper can be served to the twelve members and still keep within the maximum cost, one dollar, has been proven to the satisfaction of the club, as will be shown by the menus given below.

Bouillon Wafers	$ .05
Salad	.12
Brown Bread	.03
Olives	.08
Jellied Beef	.06
Cranberries	.05
Potatoes (French Fried)	.03
White Bread and Butter	.15
Cake	.10
Jelly	.11
Coffee	.09
Sugar and Cream	.10
Salted Nuts	.03
Total	$1.00

Vegetable Soup	$ .08
Wafers	.05
Potatoes	.05
Bacon and Liver	.05
Pickles	.04
Rolls	.10
Butter	.10
Cabbage Salad	.10
Cake	.10
Sugar	.02
Coffee	.08
Milk	.05
Cream	.05
Corn-starch Blanc-mange	.12
Total	$ .99

Potato Salad	$ .06
Wafers	.02
Cheese-balls	.02
Beauregarded Eggs	.11
Veal Croquettes	.08
Saratoga Chips	.02
Rolls and Butter	.14
Maple Parfait	.28
Cake	.08
Coffee, Sugar and Cream	.14
Candy and Nuts	.05
Total	$1.00

Perhaps for farmers' wives a smaller club, with husbands included as honorary members, would be more satisfactory; and as men are usually more hearty eaters than women five ladies and an equal number of gentlemen would probably do justice to a supper that would be fully sufficient for twelve ladies.

MARION LAWRENCE.

HOME AND ITS INFLUENCE

What is home? We all sympathize with the person who doesn't know, as the poet says:

Breathes there a man with soul so dead,
Who never to himself hath said,
This is my own, my native land.
Whose heart has ne'er within him stirred,
As homeward he his steps has turned
From wandering in a foreign clime.

Then is our country our home? Why, in a liberal sense we all say, yes. But is there not one spot set aside from all the rest, away from all the petty trials and annoyances of every-day life, which we call "home?"

Do our minds ever wander back to the old home of our childhood, and in fancy can we see father, mother, sisters and brothers, each filling a separate place in an unbroken circle? What happy thoughts go dancing through our minds! We are, as it were, held in thrall by the scenes of our childhood. But alas! all too soon the charming circle is broken. Some go here, some there, to search for homes of their own, and some have gone to those fair realms from which none ever return.

Time passes on and leaves its mark on everything. The old house has gone to ruin. A chill passes over us as we enter the shattered frame of what we once called home. But even now we hate to depart. Some odd fancy seems to bind us to the dear old place.

What is it? Ah! memory binds us there. The real home is gone. It is numbered among the things of the past. What is left? The influence of that home is left, and left to stay, be it good, bad or indifferent. Time, talent, business life and all the combined forces for good and evil are unable to blot out the impressions of our childhood. The real home is gone, but its influence remains.

"Like the vase in which roses have once been distilled,
You may break, you may shatter the vase if you will,
But the scent of the roses will cling to it still."

Are all homes alike? No, positively no. Did you ever notice in speaking of home or mother you bring tears to some eyes, and the same words cause sneers to form and bring curses from other lips?

There are men, and women, too, who will shiver when the word "home" is mentioned. Can we picture our children in such a hardened sample of humanity?

Now, we who are building a home to-day, are we building one that will stand? Yes, stand forever and a day, though the winds may blow and time fly on. Will the impressions of their childhood help our children to lead pure and noble lives, or will they have a tendency to push them hellward? Parents, consider what kind of a home you build.

EMMA C. GUNN.

MATER DOLOROSA

BY ALICE WINWOOD ANTHONY

I.

She had the heart of universal motherhood;
All children were her wonder and delight;
She'd turn and watch a street-waif at his play
Until the blinding tears would blur her sight.

II.

And I have seen her hold my little son,
His velvet cheek pressed close against her face,
And say, "Some time, in the joy of days to come,
My own dear child will have your little place."

III.

So when at first she felt a tiny life,
And knew the strange thrill of coming motherhood.
The world for her was free of every strife;
Her heart was full of peace, and God was good.

IV.

So daintily she made the fairy frocks;
Each stitch was set with such a loving care;
And she would pat the tiny boots and socks
As if the precious feet were really there.

V.

And when the final agony was safely past,
They brought the child and laid him on the bed.
Sweet as a rose from God's own garden fair,
The boy she longed for lay before her—dead.

EXPECTED GUESTS

No, I did not forget the negative prefix before my adjective. I am sure the reading public is beginning to weary of the accounts of the five-course dinners that are evolved, on the arrival of unexpected guests, from the contents of a tin can, half of a hard-boiled egg and a pint of sour milk. So list ye to the tale of the guests who are expected.

It was a sunny Friday morning late in May. I had left the workaday world and its cares behind me as I mounted the stairs leading to my little study. However, while sharpening my pencils I chanced to remember the next day a Group Epworth League convention was to be held in our town.

"I will go," I resolved. "I can finish this story by nine to-morrow, and I will—"

Rap! rap! sounded on the dining-room door. I hesitated a moment, wishing I knew it was an agent, for then I would not stir. She who hesitates is lost; I rose and went down. At the door was Mabel, a sweet-faced high-school girl whose home is a block away.

"No, I can't come in, for it is 'most school-time. Mrs. Brown wanted me to ask you if you would take two or three of the delegates to-morrow for dinner and supper."

While I was vainly trying to find some excuse Mabel ran on:

"It's a bother, isn't it? Mama thought so; but she had to take them, and so did Mrs.—"

"Yes, I will take them," a little grudgingly. "I had planned to go to the convention, that was all."

The morrow came. I donned a kitchen-apron and rose to the situation. Now, I had no idea of feasting those delegates, but "two or three for dinner and supper" is somewhat indefinite for a woman who lives alone.

I worked hard all the forenoon. There is no use of telling me that a smart woman would have done all I did in two hours, for, alas! I am not a smart woman. I baked a lemon pie for dinner and a cocoanut cake for supper, besides watching for the baker's wagon for a loaf of fresh bread. I cooked a roast—one large enough so I could have cold meat for tea. I cooked potatoes enough for dinner and for a salad for supper. I cooked asparagus and made lettuce salad. "Betweentimes" I put my little home in perfect order, spread my table prettily for four, made fresh bouquets, carried water and towels to my guest-chamber, and saw that curling-iron and clothes-brush were at hand.

As I worked my heart warmed as well as my face. In imagination I listened to the addresses of the morning. It was an honor, it was surely the Master's work, to entertain those delegates. I hurried out to gather grass-pinks for another bouquet, placing it on the dresser in the guest-chamber. Then I laid a fan on the sitting-room table, and with it placed the new magazines.

My dinner was planned for half-past twelve, as I thought that would give the delegates time to walk from the church to my home. My meat was done, gravy made and vegetables nearly done when again I heard a rap at the door.

Again it was Mabel. "I thought I'd come over and tell you that you were not going to have any one," she said, gaily. There were only a few came, and they were sent to the places near the church."

She chatted a moment, then hurried away to her own dinner. I went out to drain my potatoes. How that dish of potatoes loomed up before me! I was sure I should never, never again want anything to eat. What should I do with that meal? My neighbors had all dined, and there was not a tramp in sight. Well, I did the only thing possible—I laughed.

Hope Daring.

HOP-SCOTCH

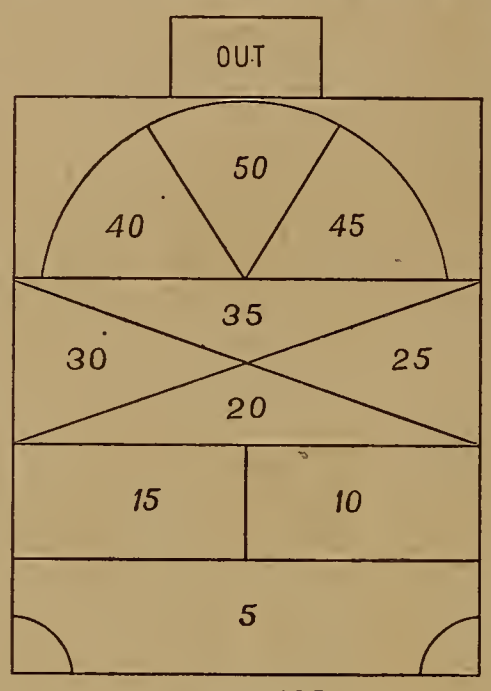
"What is the matter with your right-foot shoe?"

I looked down at my new, made-to-order shoes, and said—not a word. I knew what was the matter, but I didn't care to say.

"Very well, miss, if those shoes go before their time you can go barefooted to school."

My mother was very angry with me. I had never been permitted to go barefoot as a pleasure, and now to be threatened with it as a punishment was something that frightened me. However, the enticements of hop-scotch were too alluring to be resisted very long, and the way mother found out the secret of my ill-looking shoe was, One rainy day I invited three or four other girls home with me, and bringing a chunk of chalk with us we marked out a beautiful hop-scotch score on the floor of an unused room. We were having such a happy time, when mother, attracted by the noise, came in on us, and—well, the game was broken up. How I used to envy the barefooted children and those who wore dirty and ragged clothes—they seemed to be having such a good time—while I was always kept like a doll-baby, with strict injunctions to sit still on the front steps and not spoil my dress or get my hair out of curl. If I felt the least bit joyous, and tripped lightly through the house or yard, I was immediately called back to "walk lady-like." Instead of playing games or reading delightful books, as the children nowadays can, I was pinned down to a hateful seam to sew, or given a stint of knitting, so as to be learning something useful.

It was not until I had children of my own that I enjoyed a wild ride on a sled down a steep hill behind my little boy, who coaxed so hard, and said, "Who'll see you after dark?" And just as I got to the bottom of the hill who should I run afoul but one of my nearest neighbors, who, in astonishment, exclaimed, "You are trying to be young, aren't you?" But it was in the privacy of my own cellar, which had a brick floor laid in solid cement, on a rainy day, when I did not look for visitors, that I



taught the children how to play hop-scotch. First, you mark out a diagram like the one illustrated, and use either an oyster-shell, or a flat stone not too large, or a piece of slate. Then stand on the right foot, holding the other foot up, and with a side movement of your foot get your scotch into the entering parallelogram, which counts you five. If you get your scotch or your foot on a line, back you go to the beginning, or if it gets into one of the side ears. If you can send it by one movement into number 10, so much the better, but it goes from one to the other as it is marked, counting five more each time. In the last two comes the difficulty, for you must go from 20 to 25 and then across into 30, and then into 35, which you will find pretty hard to do until you have played a good while and learned to hop and strike your scotch sideways at the same time. But it is lots of fun; more, I think, because it isn't so easy, after all. In spite of shoes I got to be quite an expert; but it had its other side, which was bathed in tears.

Christie Irving.

A LADY CHAMPION

The glamour of the chase
Some hold in highest place,
While some compete on links and tennis-courts;
But hop-scotch finds supporters
Among our humbler daughters,
And has its lady champion—of sorts.

Her small opponents thrill
To see such ease and skill,
She's mistress of her art, and never brags;
She's a little thing and slender,
Her eyes are brown and tender,
And she meets all comers where they chalk the flags.

No urchin in the street
The champion can beat,
They watch her till the evening shadows fall;
What though the crowd be meager,
The play is just as eager,
And she's far too keen to heed her mother's call.

When at last she hurries back
You hear a hearty smack,
And the champion goes to bed with tears and moans;
Yet at seven o'clock next morning,
When the sporting world is yawning,
She's back again hop-scotching on the stones.

—Jessie Pope.

WITH CHERRIES

Cherry Scramble.—One pound of sifted flour, one half pound of finely chopped suet, one half pound of sugar and one half pound of pitted cherries. Mix well, and stir in one half pint of milk. Put into a pudding-basin or in a cloth, and boil for three hours. Boil one half pint of pitted cherries with one fourth of a pound of white sugar and one pint of water for one half hour. Strain, and serve as sauce for the scramble.

Vol-au-Vent of Cherries.—Cut out of a sheet of four-fold puff-paste one inch thick an oval piece six inches by four inches; egg the top, and with a small-sized cutter stamp a mark one fourth of an inch deep. Bake in a hot oven about one half hour, or longer if required. When baked take the soft paste from the center, and place the pastry back in the oven to dry a few minutes. Wash and drain two pounds of fine ripe cherries. Make a syrup with one pound of loaf-sugar and one half pint of water; let it boil five minutes, add a few drops of cochineal, to make the syrup a light red, then put in the cherries; let them come to a boil, and remove from the fire immediately. Stand the stew-pan in a panful of cold water, to cool the cherries quickly, thereby saving their color. When ready to serve, fill the pastry-case with the cherries.

Cherry Blanc-mange.—Dip a mold in cold water and line it with fine, sweet, pitted cherries, then pour in a layer of blanc-mange. When partly cold cover with pitted cherries (sweetened) and another layer of blanc-mange. When cold turn out carefully, and cover with well-sweetened whipped cream flavored with lemon extract.

Cherry Puddings.—Prepare small cups for baking by buttering them well, and put in the bottom of each a large spoonful of pitted cherries sprinkled with sugar. Soak one pint of bread-crumbs in boiling water until soft, then press as dry as possible; add to the bread two well-beaten eggs, one tablespoonful of sugar and one tablespoonful of melted butter. Mix well. Fill the cups with this, and bake in a quick oven. Serve with cream and sugar or whipped cream.

Cherry Jelly.—Select fine, ripe, sour cherries. Put them into a preserving-kettle, and mash slightly to extract the juice. Place them on the back of the range to cook slowly, and let them simmer for one half hour. When sufficiently cool put them (a few at a time) into a coarse muslin bag and squeeze out all the juice, pressing hard. To two cupfuls of the juice allow one and one half cupfuls of granulated sugar. Bring the juice quickly to the boiling-point, and boil rapidly for twenty minutes. Then draw the kettle to the back of the range and add the sugar, which should have been made very hot in the oven. Stir steadily until it is all dissolved, then place it over the fire again and boil briskly for one minute. A firmer jelly may be had by adding one fourth part currant-juice. Cherry jelly is a delicious accompaniment to game. Some very delightful sandwiches eaten at a picnic last year were said to be concocted of shavings of dried beef and cherry jelly between very thin slices of buttered brown bread.

Pickled Cherries.—Choose large, ripe, firm cherries. Wash and stone them, and for every five pounds of fruit allow three pounds of sugar, one teacupful of water, one pint of best vinegar and one tablespoonful each of ground mace and cinnamon tied in a piece of muslin. Boil the vinegar, water, sugar and spices in a preserving-kettle for ten minutes, add the cherries, and let simmer gently on the back of the range for ten minutes longer. Seal boiling hot.

Preserved Cherries.—For these allow equal weights of sugar and fruit. Select large, ripe, sour cherries; stem, wash and stone them. Sprinkle the sugar in layers over the fruit in a preserving-kettle, and let stand one hour, then simmer very gently until the cherries are clear and the syrup is rich and thick. Seal boiling hot.

Mary Foster Snider.

A MOTH-PROOF BOX

Last spring when it came time to put away the winter flannels I decided to improvise a moth-proof chest. I got a common wooden box with a cover to it, and pasted strips of paper over all the cracks, both inside and out. When the paste had dried the box was ready for use.

The things to put in it were rolled up in bundles and wrapped in newspapers, and each bundle was marked in pencil on the newspaper margin. This was a great help in finding what was wanted in the fall, as was also the list of its contents, which was pasted on the outside of the box. When all the things had been packed the cover was put on and pasted strips of paper fastened over all cracks.

If one desires, moth-balls may be used, but their smell is unpleasant, and if the articles are clean and free from moths or eggs when they are put away, and if they are secured so that nothing can get in, further precautions are unnecessary.

Susan Brown Robbins.

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"It is a wonder. Our washing is very large and "we have always had two women on Monday and one "on Tuesday. Our cook and the yard boy **now do** *"the washing in 4 hours much better than before."*

Newman, Ills., July 5, 1900.
I can testify that the 1900 is the best washer and the easiest running machine. It will **absolutely clean** the clothes, cuffs, and bottoms of ladies white skirts better than can be done by hand. The washings that took my wife from 5 to 7 hours to put out by hand, can easily be done in 2 hours. R. A. SKINNER.

Kensee, Ky., March 21, 1900.
I did a double washing for myself yesterday and made 65 cts. from my boarders, besides all my cooking, milking and housework. It takes less soap with your machine than in the old way. I have no need of the washboard any more. Mrs. L. A. BARTON.

Onalaska, Wis., Jan. 4, 1901.
We are a family of 5 and as I had a 3 weeks wash it was an immense one. Had it all out in 3 hours and never had nicer looking clothes. I did not even put my hands into the water. I cannot too strongly recommend the "1900" washer. Mrs. J. M. WILSON

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THE SILENT BATTLES

Sages and history, a wondrous story
Have ye revealed, through all the ages down,
Of strife and peace, of battles and of glory,
Of cross and crown.

Brave men have risen to heed the call of duty,
True souls have grappled with the shape of Wrong,
And through their wars have come, in martial beauty
Unspoiled and strong.

But in your tomes I find nowhere recorded,
Nowhere endowed with its honors due,
One tale of valor, tested and rewarded—
One tale that's true.

It is the unconfessed, unuttered story,
Repeated in each life from sun to sun,
Of man's long, silent struggle, and God's glory,
When Right has won.

In all the record of the past, oh, never
Is God's right hand more manifest and strong
Than when, by prayerful, earnest, firm endeavor,
Man masters Wrong.

—Frank Walcott Hutt, in Sunday-School Times.

"THAT DOESN'T TROUBLE ME"

"THAT doesn't trouble me!" said a fireman in the employ of the Boston and Maine railroad several years ago. A Canadian express-train had just rolled into the station at Boston, and the engineer was remarking that a "hot box" had developed since leaving the last station.

No; the fact that there was a "hot box" did not trouble the fireman; the engineer was held accountable for every accident that occurred to the engine. It was for this reason, in part, that he received twice the pay of the fireman. But somehow the remark grated on the engineer's ears. He thought that the fireman ought to be troubled when anything occurred to the engine that he fired, and his respect for the man received a severe check.

It was not long after this incident that the engineer was called into the superintendent's office one morning. "Mr. Stevens," said the superintendent, "what sort of a man is your fireman?"

Instantly the words of the fireman passed before the engineer's mind. "That doesn't trouble me!" seemed written in letters of fire.

"Dan's a good fireman," he replied. "He and I get along all right, sir."

"There's something a trifle 'out' about him?" queried the superintendent, looking keenly at the engineer. "Wouldn't just do for an engineer?"

The engineer would have liked nothing better than to see the ambition of the fireman a reality, but he was convinced that in speaking a good word for him he would be endangering the public. "I think his place is on the fireman's box," he said. "He's a good man there—doesn't drink, and does all that the road demands."

"What's the matter with him?" persisted the superintendent.

The engineer hesitated a moment, for he disliked to prevent the promotion of the man who had fired for him for years. Finally he related the incident that troubled him.

"That settles it," replied the superintendent. "I wanted an engineer for a new local. You know the requirements of the road. He will never do."—The Classmate.

POWER OF SYMPATHY

The power of sympathy. It is the power not of a human voice, not the power of a brush, or a chisel, or a pen; it is the power of a human soul going out yearningly to help and save another. This was the secret of Christ's power. It was never said of Socrates or Plato, or any of the sages of antiquity, "When he saw the multitudes he was moved with compassion on them." Horace said he hated the vulgar crowd, and kept them at a distance. Demosthenes moved the Athenians with his matchless oratory; Phidias entranced them with the magic of his chisel; Apelles with the power of his brush; Cicero fired the hearts of the Romans with the thunder of his eloquence, but Jesus conquers the millions by the power of his boundless sympathy. And this is the only power by which the church can save. Such sympathy sees in the human what only Christ could see. It is not every one who can detect in the shapeless mass of quarried stone the slumbering divinity, but it is there; and some day a Michael Angelo comes along with chisel and mallet and sets the imprisoned angel free. It is not every one who can see in the piece of dirty coal the burning diamond, but it is there. Not every one can see in the oyster the costly pearl, yet "every shell holds a pearl in solution." Not every one can see in the piece of common clay the kindling sapphire, but it is there. Not every one can see in the sands that skirt old ocean's shore the glittering amethyst, but it is there—and there by the millions. And not every one can see divinity slumbering in the most depraved and degraded form of humanity, but it is there. Christ saw it, and it is only when the church sees it as he saw it that she will sacrifice as Christ sacrifices himself to reach and restore it.—The Missionary Outlook.

ILLUSTRATION OF FAITH

A most telling illustration was used by an English missionary in the course of his address. He held up a piece of paper, in which he said he put threepence, and taking out his watch he promised to give the packet to any one who came and took it within two minutes. The effect was dead silence. Then a boy laughed, and a few nudged their neighbors. One, however, started to his feet, which was the signal for others to follow, but he quickly ran to Mr. Jones and took the proffered gift. When the others had resumed their seats Mr. Jones asked the boy why he came. "Because you told me, sir," he answered. "Do you believe me?" "Oh, yes." "How much money have you got in your hand?" "Threepence, sir," said the boy. "How do you know? You have not opened it." "You told me so, sir." "Have you seen me before?" "Only yesterday." He was then told to open the packet, and he found not threepence, but ninepence more than his anticipations—a most beautiful way of showing how to expect the gift of eternal life, and, accepting, receive more than we thought.—Christain Conservator.

HOMESICKNESS

An old Texan looked out of the window of his Broadway office in New York City, and eyed the trees in Trinity churchyard wistfully, and said, "It's this soft hinting weather that has crept into me. That's nature. Why, the very cattle on the range get restless on such days, and break away. If the boys miss any of the herd in the early spring they don't fool around wondering where the brutes have gone. They know that the place to find them is on the range where they were born. I've known steers to go across country, straight as a die, through all kinds of obstacles, back to their old range. Horses will do the same thing. I've had wild mustangs break away in the night and make tracks for the place where they were foaled. A man is only a higher order of brute, and he keeps a good many instincts, though he doesn't always recognize them. I'm homesick for Texas, but I'm homesick for something further back than that. I've been sitting here at my desk, and every little while, without any reason or warning, I would find a shallow, pebbly stream running across my ledger and shutting out the figures, while there by the ink-stand a dirty little chap would lie on the bank fishing with an old hickory rod. I don't believe I ever caught a fish in that creek, but I was a tremendous optimist. Homesick weather I call it."

This suggests to me that diviner homesickness of the soul which I see sometimes in aged Christians, most of whose loved ones have crossed the river to the heavenly shore. They seem to feel the breezes of heaven on their cheeks, and have a homesick, lonely feeling, a longing to greet their dear ones whom it may be they bade good-by half a century ago. I was talking not long ago with an old man who was nearly ninety, and his voice grew strangely gentle and his eyes filled with tears as he talked with the sweetest and loving reminiscence of his first-born son, who went away from him when he was only seven years old, and who had been waiting in heaven for sixty years. The old gray-haired saint was as homesick for him as though it were only yesterday that he had bade him good-by.—Current Anecdotes.

A COURTEOUS JUDGE

A young lady spending a rainy evening at the home of an old gentleman wanted a cab to take her home. Her host started off to fetch the cab.

"Do let the maid go," she said.

"My dear, the maid is also a woman," was the grave reply.

The man was the late George Higginbotham, chief justice of Victoria. His courtesy toward women was regardless of rank or personal attractiveness. He would take off his hat to his cook and bow to her as graciously as though she were a duchess.

A man was trying to lead a heavy draft-horse along the street. The animal refused to be led, and then the man made several ineffectual attempts to mount the refractory creature. At that moment the chief justice came along, and seeing the man's difficulty extended his hand as a mounting-block. The man put his foot in the hand and mounted upon the horse's back, and the chief justice passed on. His courtesy made his manners good, but it did not soften his sense of justice.

A lawyer tells this anecdote: "I had once to appear before him in chambers on behalf of a charming client who had some property, but would not pay her debts. The case was heard in his own room, and he was courtesy itself. He stood when she entered. I think she dropped her handkerchief, and he left his seat to pick it up. Nothing could be gentler than his manner, and I was congratulating myself on an easy victory; but when the facts were heard the decision came that my client must pay or spend six months in prison."—The Youth's Companion.

A BUSINESS MAN'S COMPLAINT

Standing, said a journalist, by the desk of a business man who employs quite a number of lads, I saw a boy of about fifteen come in and apply for a situation. The boy was well dressed, and by demeanor and accent indicated that he belonged to a good school. Without taking off his hat, or appearing to notice anybody who was present, he demanded, in a sharp, unpleasant voice, "Say, mister, are you advertising for a boy?" The business man looked at him for a second and answered, "I want an older boy than you." "What?" "I want an older boy than you," answered the merchant, in a somewhat louder voice. "Oh!" answered the lad, as he swung around and walked out. "That," said the merchant to me, "is a sample of the manner of a modern schoolboy. In my business, you know, we depend almost entirely on politeness, quickness and adaptability of the young fellows we have behind the counter. My customers ask me why I change my boys so often. Certainly it is not to save money, for I would be willing to keep them if they were worth keeping. The first thing they ask me is what wages I pay, and the next what hours they will have to work. They never think about me or my business; all they want to know is how much money they can get out of me. Apparently they give me no credit for being able to teach them a profitable trade; they only regard me as a taskmaster, who is to be made to pay the highest price, give the shortest hours and accept the lowest quality of service."—Christian Youth.

AN IMPORTANT SOCIETY FORGOTTEN

"John, I would like to invite my friend Mrs. Smalley this evening. Will you be able to be in?"

"No, my dear; I must attend the meeting of the Ancient Order of Foresters to-night."

"Well, to-morrow evening?"

"I have the Royal Arcanum, and you know—"

"What about Wednesday evening?"

"Oh, the Odd Fellows meet that night; on Thursday evening I have a meeting of the Knights of Labor to attend; on Friday, the Royal Templars of Temperance; on Saturday there's a special meeting of the Masonic lodge, and I couldn't miss that; and then Sunday night—let me see, what is there on Sunday night, my dear?"

"The Grand and Ancient Order of Christian Fellowship."

"Why, I had forgotten. Am I a member of that? Let me see—"

"But you had forgotten another society, John, of which you were once a member."

"What's that?"

"Your wife's."—Christian Conservator.

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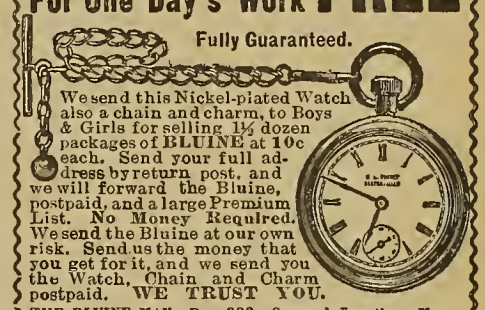

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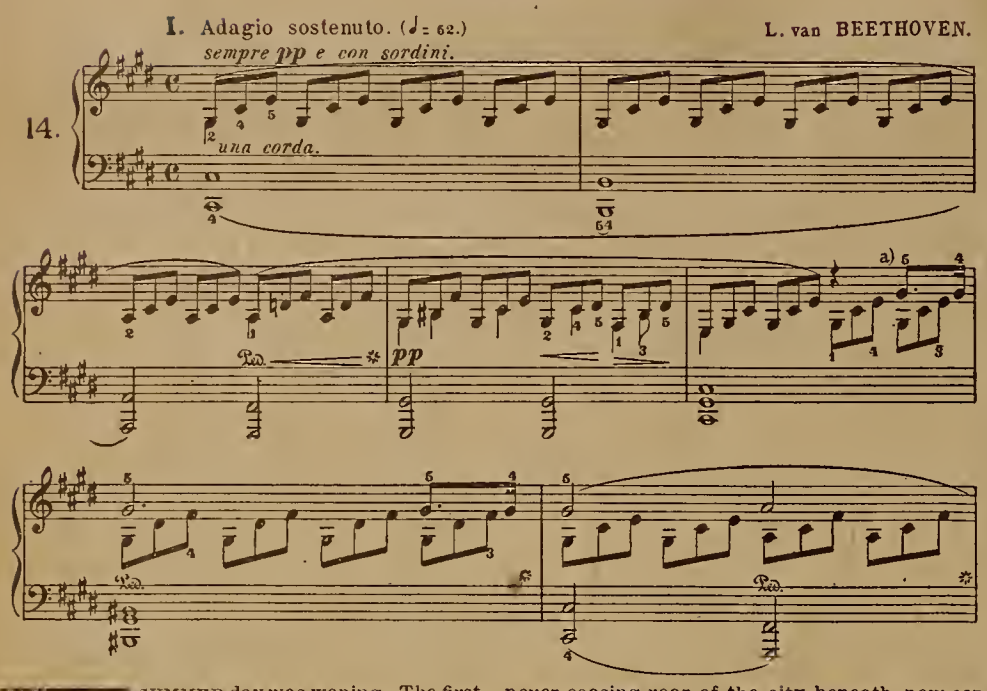
A Fair Vision

By ALEXANDER DE SANTOS

CHAPTER I.



A SUMMER day was waning. The first cool breeze kissed the scorched pavements of Paris. The inhabitants were recovering from the enervating influence of the pitiless heat, and the sidewalks once more became kaleidoscopic with a medley of humanity. The blinds were opened and the lamplighter went dexterously about his task.

Jean Garnier, the painter, scarcely knew how long he had been sitting in the easement of his little room in the Rue des Fossés-Saint-Benoit, smoking his pipe and gazing listlessly at the gathering mist above the roofs of the Latin Quarter.

The moon had risen over the roofs; its soft light now streamed into the chamber, and the clouds which passed from time to time over its disk threw fantastic, flickering shadows upon the gray wall opposite the window.

Suddenly Jean was awakened from his reverie by the sound of a chord struck on a piano. The music floated out above the din of the street, and Jean listened intently. It was Beethoven's sonata in C-sharp minor, and the player was Gabriel Légendre, the old organist who lived in the room beneath. The strings of the old piano sang softly and sadly the pathetic adagio sostenuto—that slow, undulating melody which has been compared to the gliding and rocking of a boat on a moonlit lake. At length, with a chord like a final sob, there came a pause, and the music abruptly changed to a joyous, solemn, minuet-like tune—a ray of hope, like the vision of Fata Morgana in the desert.

When the joyous strain died out the melody became a wild, passionate, agitated allegro. Gradually this tempo became more peaceful, and with a final tempestuous outburst, like a cry of despair, the sonata ended with great chords like the echoing thunder of a receding storm.

Jean had heard Légendre play this piece many times, but to-night he was strangely moved by the eloquence of the musical thoughts in Beethoven's "Moonlight Sonata." It seemed to him that the musician had never played with such expression before, and that the old piano, with its quaint, quavering notes, never had given forth such pathos and such passion.

Jean rose and began to walk about the room. The stillness of the night, broken only by the never-ceasing roar of the city beneath, now contrasted vividly with the music. The bells of a neighboring church chimed the hour of eleven.

Jean again sat down near his window, and dreamily watched the shadows of the passing clouds as they flitted across the opposite wall. Presently he again heard the sound of the piano from Légendre's room. The old man was playing the Moonlight sonata once more. This time he seemed to put his whole soul into the instrument, and it wept and wailed like a human being in the melancholy adagio.

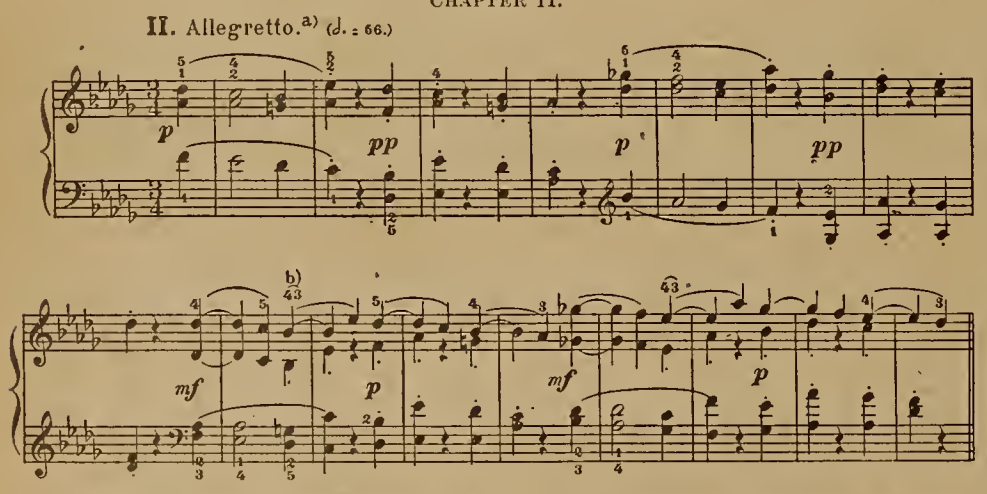
As Jean listened and looked at the phantasmagorial of shadows it seemed to him that he saw the features of a human face on the wall. At first the image was clouded, but it grew clearer and clearer, and finally a woman's profile stood out sharply in black and white, surrounded by a halo of shadows from the little clouds that kept passing in front of the moon.

Just then the music changed abruptly into the agitated stormy allegro. Jean started at the picture on the wall, and it seemed to him that he had seen those features before, but he could not recall the original. The woman's head was slightly bent forward, and her eyes were cast down. The delicate features wore a striking expression of calm dignity and purity. Her hair was parted in the center; it came down in wavy masses over her temples, partly hiding a classic brow, and was gathered behind into a simple coil. The exquisite mold of the neck and shoulders was in harmony with the graceful poise of the head.

As though impelled by an irresistible force, Jean took his drawing-board and crayon and began to sketch. The silver radiance of the moon fell upon his paper as he worked, and from time to time he paused and listened to the music. Rapidly, with nervous touch, he drew the outlines of the face. He hardly dared take his eyes from the picture on the wall lest it disappear when he turned to his paper.

With beating heart he had completed the sketch when the shadow of a passing cloud hid the picture from view. The storm which the player had raised on the strings of the piano now gradually subsided into a more peaceful theme. A feeling of calm overcame Jean and he leaned back in his chair. The drawing-board fell to the floor with a crash. The music ended with a few chords like the diapason of a great organ, and all was still.

CHAPTER II.



Jean had spent the past few days in searching for a subject for his next picture, and his master, Aristide Gérard, had announced that if the painting proves worthy it will be entered at the coming autumn exhibition.

When Jean entered his teacher's studio on the following morning with the sketch he had made during the night he felt strangely happy and exultantly hopeful. He had chosen his subject—it was to be a portrait study after the sketch of the woman's head which he had seen in the picture on the wall.

Jean sat down in front of his easel in Gérard's studio and began to copy the sketch on a fresh canvas. He had completed the outlines when Monsieur Gérard walked into the room. Gérard greeted his pupil in his usual kindly manner, and silently examined the sketch. Then he turned to Garnier and gave him one of those encouraging nods for which his pupils would wait so anxiously.

"Who is this beautiful creature?" he inquired, suddenly noticing that Jean was becoming confused. "Do you know any one who looks like this?" Gérard added, carefully probing his way.

"Some features of this face seem familiar to me, but I have searched my memory in vain, and I believe I—I have never seen this woman. What do you think of the subject?" Jean asked, becoming more confident as he noticed the expression of approval on his teacher's face.

"The drawing is certainly excellent," replied Gérard, still wondering at his pupil's confusion. "Is this not some fair maid who reigns in your heart?" he asked, in a good-natured tone.

"Quelle idée," Jean answered, smiling. "I never thought of that. The fact is, no one is occupying that throne just now."

Gérard said nothing, and examined the sketch critically. Then he walked to the window, and sinking into an arm-chair began to blow little puffs of smoke from his cigarette into the air in front of him. He watched Jean keenly as the latter busily applied himself to his work.

Gérard was not only an artist, but a man of culture. As such he was more or less of a philosopher, and had been infected with the spirit of the modern school of French novelists who carry keen psychologic analysis to a degree of refinement which characterizes the scientific tendency of the age. They like to dissect human character and human passions, and to regard humanity, as it were, through the magnifying-glass of the naturalist.

Gérard took a great interest in this movement, the more so as his own social set contained some modern writers of French fiction, and he had made a special study of the psychic origin of artistic inspirations. Therefore, as he sat there and smoked, he knew that there was a story connected with the beautiful face Jean was sketching. The latter worked away at his canvas, congratulating himself that he had escaped further questions, and apparently absorbed in his work.

Suddenly Gérard rose and placed his hands upon the young man's shoulders.

"Jean, tell me all about it," he said.

There was a fatherly kindness in his voice, and as Jean looked up into the face of his teacher he realized that what he most needed at that moment was some one to whom to tell the story of the picture. Accordingly he related the occurrences of the previous night. The whole story seemed so much like a dream that Jean at first hesitated, but soon he grew more confident, and finally became quite eloquent in speaking of Beethoven's music.

Gérard listened attentively, with an occasional sympathetic nod. He stood leaning against the table; his cigarette had become extinguished and he had forgotten to relight it. When Jean had finished he looked at his pupil for a moment in a peculiar searching way, and then, walking over to the window, became deeply interested in the plants on the balcony. At last, suddenly turning around, he exclaimed:

"Jean, you are a living proof of one of my pet theories."

Jean looked at him with astonishment.

"Do you know what this picture represents?" the painter continued.

"My ideal of beauty," ventured Jean.

"Yes," said Gérard, "but it has a deeper significance. It is well known to those who have studied the psychology of the emotions," he continued, "that every man carries in his heart, or, to be more precise, if you will, in his consciousness, certain characteristics of woman which are to him what fetishes are to certain uncivilized tribes. In other words, the special power of attraction possessed by certain features or peculiarities of a woman are the real basis of the individualization of love, or of what is commonly called affinity. These peculiarities may be physical, such as a particular shade of hair or color of eyes; or they may be mental, such as particular temperament. Thus this portrait undoubtedly represents a combination, a composite picture, of all the features which you individually adore in woman, and hence you can only love a woman who possesses one or more of these characteristics."

"But this is only a theory," said Jean, who was carried away by this train of reasoning.

"A theory," Gérard said, with emphasis, as he faced his pupil, "which is based upon facts and which has been confirmed by the experience of ages. In fact, it is by no means new, and has only been expressed in its present form in the light of our knowledge of psychology and esthetics. Have you never asked yourself why it is that if a man loves more than one woman in his life, certain important characteristics of the first will often be found in the second or third?"

"I confess I have never regarded love as something that can be studied analytically, like a chemical substance; but this is all very interesting. Of course, your theory applies to woman in regard to her love of man?"

"Not only that, but it applies even more forcibly to woman, because in her the emotional element is the basis of all psychic activity—much more so than in man."

M. Gérard rose to go, and with a final glance at the portrait said, "There is another conclusion from these premises, and that is that you are now working under the most favorable conditions for an artistic success. I am certain that you are painting a picture which will reflect your individuality, and this, with proper technique and a high esthetic standard, insures a work of merit." With this he bid his pupil good-by and walked out.

It was varnishing-day, when the artists whose pictures are exhibited come to take a last look at their work before it meets the eye of the public, and Jean, too, had come to examine his picture for the last time. All the weeks of the summer and early autumn he had lived only for that picture. He had worked with an enthusiasm which was new to him. He scarcely could wait until the time to begin in the morning, and it was with a sigh of regret that he parted from the canvas in the afternoon when the light grew dim.

As he stood in front of the painting now, in one of the galleries of the exhibition, his work seemed to him more imperfect than ever, and yet it was a good likeness of the face that had appeared on the wall of his room.

A group of artists stopped to look at the "Fair Vision," as his picture was styled, and Jean turned away to avoid hearing their criticisms.

He knew now that his master was right; he had put his individuality into that picture, and the painting was, as it were, a reflection of his inner self. He did not care for the opinions of the critics now, for he knew that whatever the fault of his work, he had remained true to himself in its execution.

As he walked on through the halls and down the great stairway of the palace he felt a strange dizziness overcome him. He remembered that he had not been quite well during the past few days, and that it had cost him considerable effort to take a part in the preparations for the exhibition.

When he had reached the street his throbbing temples, his parched throat and the sudden chilly sensation which seized him told him that he had fever.

It was raining in torrents, but he never thought of taking a cab, and so he walked on to his lodgings in the rain. How he managed to climb four flights of stairs to his room he never knew. He threw himself upon his bed without undressing and shivered in his wet clothes without the strength to take them off.

The room seemed to swim before his eyes, and the furniture danced strangely up and down. His eyelids seemed to be made of lead, and as he closed them he mechanically counted the pulsations in his head. He felt as if his body was floating—floating in space, as if rocked on the great waves of a surging sea. And as he looked forth into the darkness, under his closed eyelids, suddenly he saw a road lit by moonlight. The road seemed to be whirling, whirling around him, and beyond it was a boundless plain which seemed to revolve with the road. Faster and faster the road flew by; then everything grew more and more dusky, until all was dark.

CHAPTER III.

"His condition is so critical that I have sent for you now in the middle of the night," said Dr. Marcel Villiers, the young extern, to the chief physician of the hospital, Professor Bertrand, as they stood at the bedside of a patient in one of the wards.

The older physician, who had a ribbon of the Legion of Honor in his buttonhole, gravely surveyed the prostrate figure, and took out his watch to count the respiration of the patient.

At the foot of the bed sat a Sister of Charity with bowed head and folded hands; her pale young face wore that expression of weary resignation which belongs to those whose duty demands night vigils at the bedside of the sick.

"Let me see his history, ma soeur," said the Professor, addressing the nurse.

She obeyed, and Dr. Bertrand, fixing his eyeglasses on the bridge of his nose, began to examine the official documents of the hospital relating to the patient. Presently he turned to his younger colleague and the two held a whispered consultation. Suddenly the sufferer stirred and tossed his head from side to side, stretched out his arms as though trying to grasp something that evaded him, and muttered a half-dozen broken sentences in the jerky, incoherent fashion characteristic of delirium.

"He is continually muttering something about some woman's portrait," said the younger physician, in a low tone. "He was brought here by Légendre, the organist of Saint-Benoit."

The Professor had returned the papers to the nurse without noticing the name of the patient, and now, bending over the pillow, he examined the little frame above the head of the cot.

"Garnier, Jean-Francois-Marie, of Bourges, single, twenty-seven, Protestant, painter, admitted September fifteenth," he read.

"Garnier," he repeated. "Why, that's the painter of the 'Fair Vision' that has attracted so much attention at the Exhibition. He is a pupil of Aristide Gérard. Poor devil, it would be sad to see him die at this time. I believe it is his first exhibit."

Just then the patient stirred again and began to mutter. He breathed heavily, tossed his head violently and threw off the ice-cap that had been placed there. As the nurse approached him to adjust it he grasped her arm with trembling hands, and as she gently held his hand he seemed to grow more calm and to rest quietly.

"Pauvre diable," repeated the Professor, "I certainly agree with you in calling this typhoid fever; but I must say I do not think he will recover. However, you may try—" and here he whispered some directions to his colleague, who carefully wrote them in his note-book.

Then the older physician departed with a nod to the nurse and a whispered "good-night" to Dr. Villiers; a few minutes later they heard the rattle of his carriage over the pavement.

Dr. Villiers sat at the head of the bed and stared at the tiled floor. He had promised Légendre to do everything in his power for the patient, and now—this hopeless view of the case by the Professor. He had been taught to believe implicitly in his superior's dictum. His only hope now was that Dr. Bertrand had purposely stated the case as a hopeless one, in order to demonstrate the efficiency of his own treatment.

"I shall remain here all night, ma soeur," he said to the nurse. "Go wake the pharmacist and give him these orders," he added, as he tore the slips from his book.

She obeyed, and he could hear the rustling of her gown as she walked between the beds to the corridor.

The stillness of the night was broken only by the tick-tack of the great clock with its phosphorescent dial at the other end of the hall, and by the breathing of the sleepers about him. The silence was so oppressive that it seemed to him like a death-watch. He began to count the minutes by the clock until Sister Catherine returned.

The bright sun of an October morning was shining into the great windows of the ward when Jean Garnier opened his eyes for the first time. The glare of the light compelled him to close his

eyes again at once; and as he lay there, his eyes half closed, he thought of nothing else but the dream he had dreamed in the peaceful slumber that had preceded his awakening.

He had dreamed that the woman whose likeness he had painted was alive and was sitting beside him; that her tender hand was smoothing his pillow and cooling his heated brow. It seemed to him that he could feel her presence even now, at the point of transition of dream and reality; and as he opened his eyes once more he thought he had seen her for a moment in the golden sunlight—for a moment only—and then the vision vanished and Jean found himself looking into the watchful eyes of Sister Catherine. From that moment he began to mend.

Gabriel visited him as often as the hospital regulations would permit, and Gérard sent his servant daily to inquire about his pupil.

And what joy when one day there came a bundle of illustrated papers from Gérard, when Jean saw a reproduction of his painting with his own portrait underneath, and when he read that he had gained one of the prizes of the year! What joy when the old organist came, breathless, to congratulate him, to tell him that his picture was the talk of the city, and that Gérard had already received orders for portraits of grandes dames of the Faubourg Saint Germain to be painted by his pupil; when Gérard himself came to see him, and would have hugged him but for Dr. Villiers' warning that the patient must not be too greatly excited.

Gérard regarded Jean's success in a measure as a personal vindication, "a triumph of physiologic esthetics," he said.

During the tedious convalescence Jean became greatly attached to Dr. Villiers, the young physician who had attended him so faithfully during the critical part of his illness. Jean often said that he hoped their friendship would endure beyond the hospital walls; and when the time came to leave the physician made him promise that he would visit him at the Hotel Villiers in the Avenue Montaigne.

One evening some weeks later, as Jean approached the doctor's house, a carriage was standing in front of the door. A servant was placing the doctor's bag into the coupe, and just as Jean reached the door-step Dr. Villiers himself appeared, wrapped in a long coat, with a great felt hat on his head.

He recognized Jean by the light of the lamp in the vestibule.

"I am very sorry, Garnier," he said, "but you must excuse me for a short time. I shall return very soon. Please walk in and wait for me. You will find my sister Valéric in the drawing-room, and you will need no introduction, for she has known you all these weeks while you lay unconscious at the hospital. She is my unofficial assistant, you know, and often visits the wards with me."

With this he hurriedly stepped into the carriage and the vehicle rapidly drove away.

Escorted by the servant Jean walked through the vestibule and stood in front of the curtained door of the drawing-room. He stood still for a moment, for some one inside was playing the adagio movement of Beethoven's sonata in C-sharp minor. He listened for a few moments, and then softly drawing aside the portiere stood in the dimly lighted room.

A grand piano stood opposite the door. A tall lamp with a red silk shade threw a circle of light upon the figure of a young woman who sat at the piano, with her head slightly bent forward, her hands softly wandering over the keys.

Jean could scarcely repress the exclamation of surprise that rose to his lips, for there was the living image of the woman he had painted.

There was the same aureole of blonde hair, the same delicately chiseled features, the same serene brow, the same graceful lines of the neck and shoulders—nay, even the same attitude, as he saw her now in profile.

Jean stood as though turned to stone, and pressed his hand over his heart, for it seemed to him that its tumultuous beat could be heard throughout the room.

Suddenly she turned toward him, as if she had felt that some one was looking at her, and the full light of the lamp fell on her face.

"Monsieur Garnier!" she exclaimed, as she sought to penetrate the semi-darkness of the room in the direction where he stood.

As she did so it flashed upon Garnier how utterly unconventional his entrance must have appeared to her. He had come in like a ghost in a play. But she spoke before he could offer a word of apology.

"I heard my brother's carriage drive away, but I did not know that you had come. Will you wait till Marcel returns?" she asked, pointing to a chair near the piano.

A son of a wealthy patrician family of Bourges, Jean had early become trained in the ways of society, and never lacked that assurance of manner and that flexibility of temperament that characterize the man of the world. Yet at this moment, as he sat down, he felt that he was hopelessly awkward, and he saw that she was looking at him with that innocent archness with which women know so well how to veil their thoughts and feelings.

He murmured something to the effect that it was all his fault. He did not know what he was saying.

And now, as she spoke to him in her deep, rich contralto voice about his illness he gradually recovered self-possession. He scarcely knew what she was saying, but he sat there drinking in her beauty and listening to the music of her voice; it was just as he had dreamed.

"You were playing Beethoven's sonata in C-sharp minor when I entered. It is my favorite piece, and my friend Légendre, the old organist, plays it very often. Won't you continue?" Jean asked.

She hesitated for a moment, and then, wheeling around on her piano-chair, began to play the second movement of the piece with the precision of touch and the poetic interpretation of the composer which betokens a master.

As he sat and listened, leaning his elbow on the edge of the piano, he thought of the night when he was sitting in his room and Gabriel was playing the minuet-like melody, which he had compared to a Fata Morgana in the desert. And he asked himself, Is not this now also a Fata Morgana, a vision that will vanish as soon as the traveler approaches?

Valérie did not play the next part of the sonata, but suddenly paused and turned toward him.

"I saw your picture at the exhibition," she said, "and I am very curious to know how you could paint such a perfect likeness of me. Every one who knows me thinks that I had my portrait painted. When I first saw the picture Monsieur Gérard, your teacher, assured me that you had never seen me, and that your painting was the portrait of a purely imaginary woman. I could not believe it, and when I saw you at the hospital I waited with impatience for your recovery in order to ask you to explain this mysterious resemblance."

And then the flood-gates of his eloquence opened and he told her the story of the portrait.

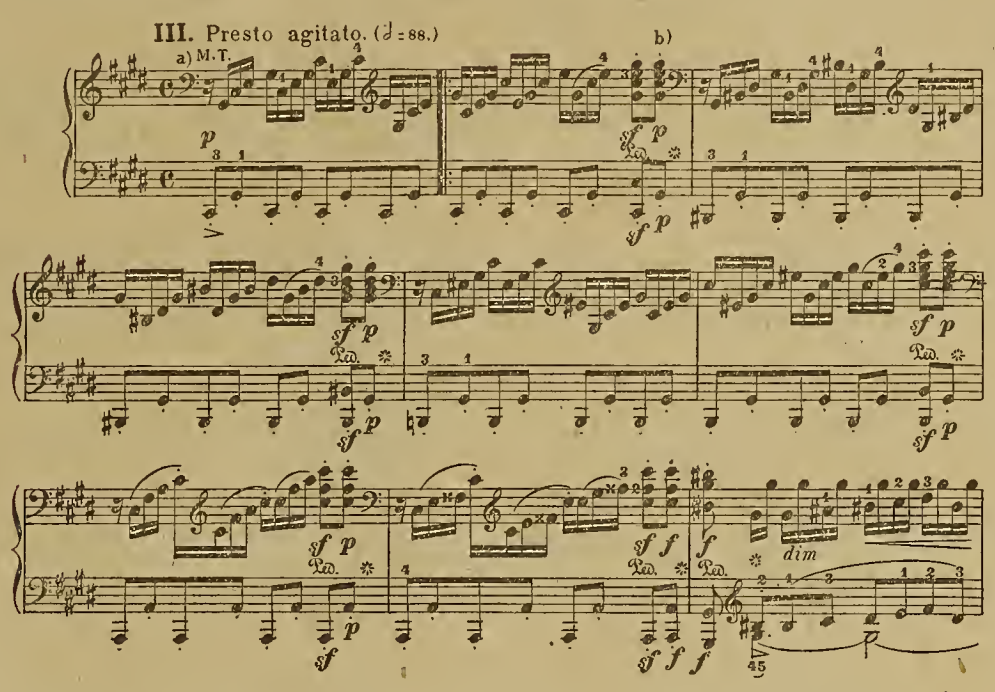
When he had finished she was sitting with her eyes fixed on the keyboard, and a slight flush was on her cheeks. Presently, as she looked up, their eyes met for a moment, and his heart beat furiously as he thought he saw in hers the answer to his own passionate look. It came like a flash and was gone.

But she struck the keys once more and began to play the presto agitato of the sonata—that tempestuous allegro which had stirred the very depths of his soul on that night in the Latin Quarter.

And as the melody grew more peaceful she suddenly glanced up once more and looked at him for a fraction of a second beneath her eyelashes. This was sufficient, for he had read his fate in those eyes.

And now, as she played the stormy outburst before the finale, he rose and gently took her hands from the keys. She did not resist.

And as their lips met they knew that the Great Composer had joined them into an invisible chord of his sublime harmony forever.



A Mount Washington Entanglement

By MARGARET SIDNEY

"You are sure?"

"Quite positive."

"Trust Em for finding out and double-proving her statements."

"Well, in this case it is necessary to be reliably informed, Malcolm," said Mrs. Vaille, with her coldest air, fingering her eye-glass before adjusting it once more to the bridge of her nose; "a little error in making our summer journey would ruin Tom for life."

"Well, if Em doesn't satisfy you I have a statement. The Hilyers are positively going to the Catskills; I heard it at the club last night."

"Then I am sure if you heard it there," cried Mrs. Vaille, radiantly, "though I've never had occasion to doubt your word, Emily."

"I should think not, mama," retorted Miss Vaille, pouting her red lips; "I've served you too well for that."

"You have, daughter; and, as I remarked, I've no occasion to call your report in question. Still Malcolm's news does please me, and quite decides the matter. We will start for Fabyan's Thursday, Emily."

"And once there you can make your plans and keep clear of the Hilyer tribe," said Malcolm, getting up and sauntering off carelessly, "though I do think you take the whole thing too seriously."

"Too seriously!" cried Mrs. Vaille, as the door closed. "Yes, that's just like a man; ready enough to scorn caution till it is too late. Then they can raise a breeze quite enough to overwhelm us poor women."

"It's just as well to be careful in this matter, I do think," said Emily, with an air of great wisdom. "Tom's penchant was so apparent everybody was talking of it at the Greshams' ball. He was such a silly! How he can be over that Kitty Hilyer and her red hair passes my comprehension."

"It isn't exactly red, Emily," corrected Mrs. Vaille, with a religious air of doing perfect justice, though her feelings were lacerated; "in some lights it is rather pretty."

Emily's long shoulders shrugged unpleasantly. "It's a dull, nasty red, mama," she declared, "and nobody but Tom would rave over it. I saw some verses on his table when I went up for a book, and they were all about the 'golden gleam' and 'sunshine caught in her floating tresses,' and all that stuff."

"They might have nothing to do with Kitty Hilyer," said Mrs. Vaille, uneasily, catching at a straw.

Emily laughed.

"I saw the name, mama, as plain as day, 'Kitty Hilyer,' down in one corner, and the date of the evening he spent over there."

"How my boy can," mourned Mrs. Vaille, as if her boy were made of purer clay than other young men, "when we've all done so much for him, and you've put him in the way of meeting the very nicest girls."

"Yes; I've nothing to blame myself for," said Emily, calmly; "I've laid lots of chances before him. But he just wouldn't; that's all there is to say about it."

"If there were any money there it would make some difference, though it isn't right to marry wholly for money," said Mrs. Vaille, virtuously. "But Kitty Hilyer without—oh, dear!"

"Money is positively odious," finished Emily, for her, "of course, mama," with a short laugh. "Well, let's say no more; the worry is all over for this summer, thank fortune! The Hilyers at the Catskills and the Vailles at the White Mountains makes the danger very small; and you and I won't have Tom to ourselves for six weeks without making him forget his craze, I'll venture to say. Come, now, we've pleasanter work to think about, and enough of it, to get ready to start Thursday."

Tom Vaille gave a mild snort of despair as he helped his mother and sister with their bags, traveling-rugs and magazines into the parlor-car of the eastern division of a Maine railroad.

"You needn't look so like a martyr, Tom," Emily could not help saying, as they were at last settled in chairs numbered eight, nine and ten. "A trip to the White Mountains with mother and me isn't the worst thing in the world, though you do look as if you were going to immediate execution."

"I can't grin furiously every minute," said Tom, lazily stretching his long legs, and calmly returning the stare of a pretty girl opposite, who had fastened approving eyes upon him.

"When you smile, Tom, you are ever so many degrees worse-looking than at any other time," observed Emily, "so don't attempt it, I beg."

"Thanks. So glad you relieved me from the trouble," said Tom, with another stretch and yawning.

"What are you two disagreeing about?" queried Mrs. Vaille, from her chair opposite. "Dear me, and we've only just started!"

"If Tom and I couldn't fight," said Emily, sweetly, "half the fun of life would be gone. Do let us alone, mama."

"Malcolm is in luck," said Tom, with a suppressed growl, "to get off on that yachting trip."

"And leave you to us poor women," added Emily. "Heavens! Anything but a surly bear of a man to trot around with! Toss over that magazine, Tom, and do open this window, and I'll see if I can forget life's miseries a little while."

Tom tossed over the magazine, opened the window, and then sauntered off to find some smoking friend to help him get rid of an hour or so.

When the party reached Fabyan's and Tom found himself in the solitude of his own room he gave free vent to his pent-up feelings.

"Deuced bad job this, keeping me tied to mother's and Emily's whims; though as to that I don't know as it's any matter where I go, I'm bound for the dogs, sure."

He tossed his portmanteau into one corner and his hat and walking-stick into another, lighted a cigarette and began to pace the floor, gloomily turning many things over in a mind too perturbed to care for surroundings. Out of it all he came to an inevitable conclusion. He was a rejected man; and to Tom Vaille being cast aside by the woman he loved was worse than death, and only to be preferred to that state because his loss and disgrace might possibly be kept to himself.

"And, hang it, that's what I will do! Emmy shall never gloat over this." He pulled himself straight and took a good look at the mirror. But the pale, drawn face reflected in it not giving him much pleasure he turned off, selected another cigarette, and cast about in his mind how he could best dispose of the six weeks that had been allotted to him as guardian of the female portion of his family.

"It's clear to see what Em has come to the White Mountains for," he growled. "She's a deep one, but she won't secure Hyde Bertram by any such dodge as chasing him around. Nevertheless, I'll help her out, and throw him in her way if occasion offers."

He heaved a sigh, as his own time for planning little surprises in the way of chance meetings was over. He felt an old man at twenty-six.

"And I can't have any better revenge for her treatment of—" He couldn't yet bring himself to utter the name enshrined in his heart, even in the solitude of his own room, "than to hand her over to Bertram's tender mercies. Great Caesar's ghost! it will be a cat-and-dog existence if it comes to anything. But since she's set her mind on it, why, I'll just pitch in and see the thing through."

"Mr. Bertram! You here! Dear me, how one does run up unexpectedly against one supposed to be half a continent's length away!" Emily Vaille did this very well, hurrying across the rotunda at Fabyan's and fingering her letters abstractedly. "How are you, and what made you come?" Miss Vaille affected the simple, ingenuous directness of a child.

"Circumstances," said Bertram, briefly. Yet an air of intense wisdom permeated his entire being. He was a little, dark man, with small, brilliant eyes. He looked at her closely. "It agrees with you to be resting under the shadow of Mount Washington."

Emily colored high under his glance. Then he turned away.

"Mama, here are your letters," she said, holding her hand above her head. "Here is Mr. Bertram," as the full figure and dowager face bore down upon them.

"Am glad to see you again," said Bertram, taking the shapely hand, with its multitude of rings; "so you were the forerunner of our townspeople to possess the land. Any others coming, do you know?" he asked, carelessly.

"I'm sure I don't know," replied Mrs. Vaille. She glanced at Emily and saw the remnant of the blush dying out. What had Bertram been saying to make the girl look like that?

"Now don't tell us that you are just rushing through. I hope you are going to stay?" interrogatively. Mrs. Vaille could look as sharply out of her light blue eyes, and she held him as if to read his very soul. Emily now must secure him when chance had been kind to her and thrown him in her way. If not, the mother would wash her hands of the whole business and leave the daughter's interests to care for themselves.

"Can't say," answered Bertram, coolly; "I'm a creature of circumstance."

"So are we all, for that matter," said Mrs. Vaille. Emily laughed softly.

"Mama, don't badger him when he first comes. No one knows what a day will bring forth."

"Don't make light of serious things and quote Scripture, Emily," reproved her mother.

"I wasn't, I'm sure; I only meant—" began the girl.

"I shall have to take Miss Emily off, to save her more reproof on my account," Bertram laughed, carelessly, and moved away with a look at her. Tom, sauntering in to get the mail, saw the group afar, and lifted his eyebrows. He would have whistled, but remembered where he was in time.

"Whew!" when he found himself safely outside, "it looks as if Emmy's haul was pretty nearly to shore. Well, I'm glad some one in the Vaille family is to be suited. Hang it all!"

"Oh, the Hilyers are going to the Catskills, so I heard. Dear me, I don't know Kitty Hilyer! My news came through others," Emily ran on, feeling the delight of sitting on the ledge, Bertram sprawled on the rock at her feet, his head resting on his hand, his eyes fastened on her face.

"I thought at one time your brother Tom was rather struck on her," he said, lazily pulling at a bit of lichen.

"He was—and"—she laughed disagreeably—"he is now; but I'll be frank with you." What a delicious thing it was to be able to unburden her heart to him. She rattled on regardless of everything but those eyes. "That's why we have come up here," she said. Even now there was no twinge at recalling the other reason, and quite as strong, that had cast the vote for "Fabyan's."

"Indeed—oh, I see!" Bertram nodded, and showed his teeth, even and white, in a gleaming smile. "Clear case of checkmate to Master Tom." Something seemed to tickle him in the thought. He rolled over on his back and began to pelt a flying crow circling above his head.

"A worse fate take the beggar!" as the stones flew wide of the mark. "Well, now, Miss Emily, yours are hard lines, I call it, to be subject to his moods and tenses."

"You may well call it hard lines," said Emily, her face wreathed in smiles. How happy he was! Nature and her own heart said, "Now is the time he will speak the word I long to hear." Yet after desultory laughter and talk, when the sun dropped behind the great ledge, Bertram got up, shook himself, and offered his hand to the girl. "I

shall see you radiant to-night," he said, as he helped her to her feet.

"What? Oh, the hop!" Her temperature had dropped, and she suddenly felt the world was cold. Yet at his words life ran warm again in her veins, and she smiled. Yes, it would be to-night, of course. Bertram never cared for dancing, and she would sit out as many as he wished. She wrapped herself in rosy clouds at once and hided her time till evening.

"The most dreadful thing!" moaned Mrs. Vaille, as Emily ran in singing to her room. "Oh, dear, I can't think—and I tied my head up in camphor-water! You can't imagine, Emmy!" Her mother advanced upon her through the doorway, a lugubrious spectacle of woe.

"Of course I can't," said Emily, "if you won't condescend to tell me!" She ran over to the mirror to see if her nose was red and how the afternoon sun had treated her.

"I can't speak it, for it nearly chokes me," said Mrs. Vaille.

"Well, then, bury it in your own bosom, mama," said Emmy, indifferently, tearing off her hat and soft draperies. "I'm going to have a siesta for half an hour," and she beat the pillows longingly.

"Kitty Hilyer is here!" broke in her mother in the midst of this.

"Kitty Hilyer!" Emily plunged the pillow back. "Are you mad, mama? Why, she's as good as safe at the Catskills."

"Sh—sh! She's in the next room!" Mrs. Vaille came up with miserable secrecy and clutched Emmy's arm. "She came in the stage this afternoon."

"Did you see her?" demanded Emily, reserving her own emotion for the answer.

"I saw her and spoke to her on this very hall, outside my door!" said Mrs. Vaille, tragic even with the wet towel around her dowager head. "Emily, my cup of misery is full!"

"Do stop about your cup of misery, mama," said Emmy, impatiently, "and let me think." She sat down on her bed, and put her face within her hands. Mrs. Vaille walked up and down with the tread of one determined to crush, since no softer means were adequate.

"I have it! Oh, how stupid," cried the girl at length, in a transport, and jumping from the bed, "in me not to think of it at once! Mama, I'll set Mr. Bertram to doing the agreeable to Kitty Hilyer. He's to be with me to-night at the hop, you know. I told him of our trouble about Tom and her this afternoon, so he quite understands, and sympathizes with me. Now, he'll take her off whenever Tom gets dangerous and divert her till we can make our plans. Anyway, that will answer for to-night; after that I will be better able to tell definitely one or two other things." She ran to her glass again and gloated over the image therein reflected.

"Well, perhaps you know best," said Mrs. Vaille, with a monstrous sigh; "but when I was young it was considered a dangerous thing to hit upon any such plan. But it is all we can do now. And even at this very minute I'd venture to say that she has communicated with Tom, and they are off by themselves and will come back engaged!" Which had the effect of making both mother and daughter spring to the task of getting dressed with marvelous celerity.

Tom's face and manner showed his surprise plainly when he first saw Kitty Hilyer as he came into the dining-room, and they were both black as a thunder-cloud when they were turned upon her. "But that is only one of the tricks of his love-making," said Emmy to herself. "He's fairly reveling over her this minute." She bent her gaze upon her slice of cold chicken as if pondering some deep problem. "I'll cut into the center of his pretty plan to-night." Then she raised her innocent blue eyes and smiled sweetly to the dark face two tables off.

"Would you mind," she said an hour or two later, walking up and down the piazza length, "doing a kind thing for me? I hate awfully to ask you, but you are so good always, and mama and I are so perplexed." She almost laid her hand on his arm, then drew it back as if first conscious of her temerity.

"Certainly. What is it? You will make me the happiest of men to command me." He mumbled some society assurances and looked his delight.

"Why, you know," with an embarrassed little laugh, "you know I let you into view of our family skeleton this afternoon, quite in confidence, you understand," with a touching little emphasis on the "confidence," "so you won't think it is strange if I tell you that we are nearly distracted to think of this girl being here. You saw her at supper?"

"I believe I did," said Bertram, indifferently. "She had on some sort of a yellow arrangement as a gown, didn't she?"

"The most dreadful taste," declared Emily, warmly; "but then she always did overdress. Who could expect anything from a Hilyer, Mr. Bertram?"

"To be sure," assented that gentleman, calmly.

"I expect they are Jews, way back at least," said Emily, "and just as commonplace and horrid as they can be. Well, now you see how difficult it will be to get Tom off to-morrow, for of course we shall have to run away somewhere." She gave a plaintive little sigh, and glanced up at the moon shining through the branches.

"Really? I don't see any need of that."

Emily's heart leaped within her. There was a little pause that he ought to have employed. Still hope was bright enough within her to explain why he didn't take his advantages.

"What do you wish me to do for you?" he asked at length. "Command me, as I said, and I will obey." He made a mock obeisance, she fancied, to conceal his real feelings.

"Will you be so good—I know how distasteful it is, and it would be for any of our set—but will you be so good as to take Kitty Hilyer off from our hands this evening? I mean, will you go and see that she doesn't entrance Tom. Oh, if you only will!" She turned all the heart in her to her eyes.

He started violently. She rejoiced at it. Then she saw him recover himself. "Why, yes—if you wish—really, I don't see—certainly, if you wish—"

"I do beg you to!" she cried.

"Well, then, good-by for now. I was hoping for that dance, but you drive me off."

"I know it," said poor Emily, feeling as if she had turned from the gate of paradise and deliberately closed it herself, "but you and I must save Tom." She did not finish only in her heart, "And afterward there will be all time for our bliss."

The only satisfaction she got was her high sense of duty well done and Tom's poor, miserable face when he spied Bertram and Miss Hilyer. Emily really reveled in the whole-souled way in which the gentleman she had deputed to such a disagreeable service acted his part. And when at last, after an indifferent evening, with a lamentable scarcity of partners, she came to the end of it she was free to confess that nothing would ever tempt her to live through another one like it.

Something must crystallize to-morrow. She clenched her little hands savagely. Even if it did not, and the only alternative was Tom's salvation from that girl, Emily had reached the point that she would throw her brother over and let him go to the dogs, since he was so plainly determined to. Her life was not to be sacrificed. She went to sleep at last in a savage mood. The next morning every one declared for a trip up the mountain. "We are positively certain to have the finest view for years," said those who were supposed to know; so our party, with others, got on the little train and rushed off.

Kitty Hilyer, the odious creature, was positively radiant. Tom, forced by something within him to go where he had the least chance of seeing her face, was in the back of the car pulling his hat down over his eyes and pretending to be lost in the view.

Bertram threw a good glance around. "According to promise, I will keep at my duties." He bent low to Emily's gay hat, with its nodding flowers. "Your brother looks like a caged animal, or—shall I say not a very choice quotation?—a bear with a sore head. Really, there is nothing bad enough to say of his face."

"You are so good!" breathed Emily. And on this scanty happiness she had to let him go and "see to Kitty Hilyer."

At last, oh, joy! she was to have on the summit of the mountain one brief moment, if no more, of happiness. He had strayed off a bit from the others, and there he stood, rapt in the scene before him, his piercing eyes widening to the glory of the vision revealed. She crept up back of him thus absorbed, and stood still and a little removed, with her back toward him. Suddenly she made a misstep, and gave a little scream. Somebody's arms were around her; somebody held her closely. She sank back feeling well repaid for all her woes.

"Emily, how could you—"

She screamed again, and tore herself free. "Tom, you villain!" then her breath gave out.

"Villain indeed!" cried Tom, in a huff; "you'd have been in 'kingdom come' if I hadn't caught you." He shuddered as he glanced down the abyss. "Come away, Emily," he begged, holding out his hand.

"As if I hadn't borne enough," she flamed, unable to keep still, "for you without your destroying my ch—" she caught herself in time.

"Borne enough? What do you mean?" he cried at her, in too bad a temper over fate to keep still on his part.

"You know quite well. Coming here for one thing."

"You came to see Bertram!" He faced her with it.

"Sh—sh! Oh, Tom, keep still!" She grasped his hand. "You know I came to keep you from that Kitty Hilyer. She was going to the Catskills, we were quite sure, and mama and I came to take care of you."

"What nonsense!" He turned on his heel, then came back and stuffed his hands into his pockets.

"If you don't believe me, ask mama," said Emily, defiantly.

"Well, I'd have saved you the trouble if you'd mentioned it to me." He gave a short laugh. "Kitty Hilyer threw me over a week ago."

"Tom!" She seized his arm and held it fast. "You don't mean you have offered yourself to her?"

"Yes, I do, solemn truth, and she wouldn't have me!" said Tom, gloomily.

"Oh, why didn't you tell us? You are really a villain!" she cried between her teeth. No time to lose now for her belated bliss. She started, creating new plans as she hurried on, to join the two she had placed together. In some way she would gain his ear and let him know the hated surveillance was to be over.

They were slowly advancing toward her. "Why not now?" Bertram was saying. "I shall do it. Miss Vaille, I will announce it first to you by reason of our old acquaintanceship. Give us your blessing." He reached for Miss Hilyer's hand, and got it, then stood in mock obeisance before her. "My promised wife forbids me, but I really must proclaim it on the top of Mount Washington."

Emily drew one long breath. All the air of all the mountain-tops in the world seemed inadequate for her lungs. "Was that the reason you refused Tom?" she demanded of Miss Hilyer, without a glance for Bertram.

"Yes; we were engaged then," with a rapturous glance at the little dark man who held her hand.

Despite Tom's distress at seeing this he laughed, the humor of the thing overcoming him.

"Come, Emmy," he said; "mother and you and I will go to the Catskills."

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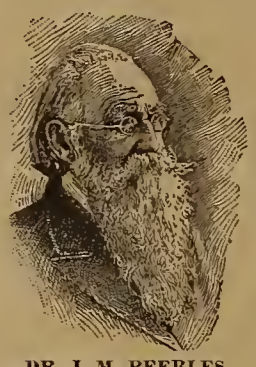

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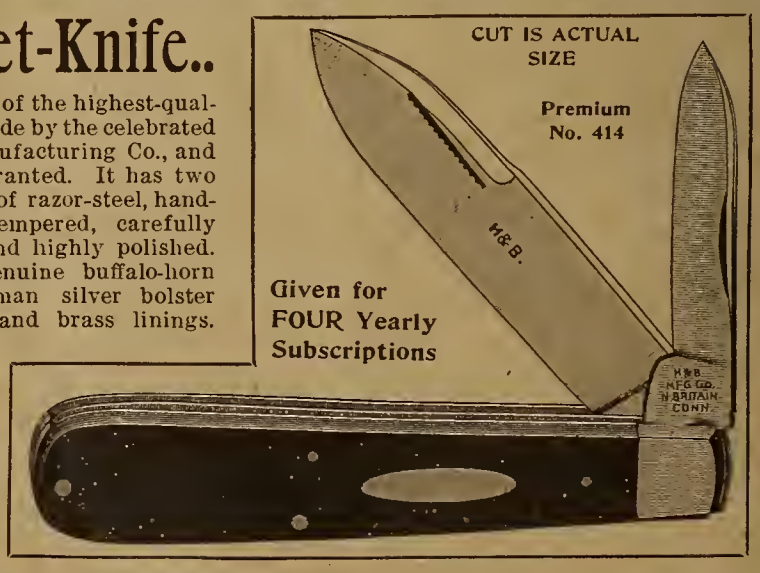

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INNOCENCE

Now the colt is gaily skipping
Where the happy zepbyrs zip,
And his uncomplaining mother
Stands aside to let him skip;
With a blissful satisfaction
Now and then he hoists his heels,
And a dozen times an hour
Stops awhile to take his meals.
Oh, he doesn't know that men are lying bleeding in the ditches,
And he isn't causing trouble by his greed for worldly riches;
Not a care is on his mind
As he rises up behind
And permits his lengthy legs to lightly dangle in the wind.

Oh, the spotted calf is tugging
At its rope, behind the shed,
And displaying wild impatience
And imploring to be fed;
Now the farmer's wife approaches,
And she bears a brimming pail,
There's a frisk of satisfaction
In the baby bossy's tail;
With his nose he bumps the bottom and he sends the bubbles flying,
And he skins the lady's knuckles, and she cuffs him, sadly sighing,
But the bossy bumps away,
Knowing not that men to-day
For a little shining metal steal and strive and scheme and slay.

Oh, the lambkins gaily frolic
In the seven-acre lot,
With their lunches always ready
To be taken on the spot;
And the pig that went exploring
Sadly runs along the fence,
And is sending up a protest
That is mournful and immense,
While his brothers and his sisters, with unbounded satisfaction,
Turn and line up in their places and forthwith get into action,
Caring nothing for the old
Worldly struggles after gold
In the markets where men's honor and their lives are bought and sold.

—Chicago Record-Herald.

HIS MASTER'S SOBER REQUEST

THE policeman had given his testimony, which was unqualifiedly to the fact of the old gentleman's intoxication. Then the old servant was called to the witness-box. There was a mingled expression of indignation and determination on his countenance. He testified flatly, to the surprise of the court, that the old man was sober when he came home. The magistrate proceeded to question the witness.

"You say that Mr. —— was sober when he came home?"

"Yes, sir."

"Did he get to bed alone?"

"No, sir."

"Did you put him to bed?"

"Yes, sir."

"And he was perfectly sober?"

"Yes, sir."

"What did he say when you put him to bed?"

"He said, 'Good-night.'"

"Anything else?"

"Yes, sir."

"What was it? Tell us exactly what he said, every word."

"He said as how I was to wake him and call him early, for he was to be the queen of the May."

The old man was fined.—The King.

POOR BRIDEGROOM!

Chloe, a young colored house-servant in an Atlanta family, had asked permission to attend the wedding of one of her friends. This permission having been granted Chloe set forth arrayed like unto a combination of Solomon and glory and the lilies of the field. The next day her mistress said to her:

"Well, Chloe, how did the wedding go off?"

"Oh, la, missus, it was de grandest weddin' I ever saw! It was jess lubly! An' de splendid weddin' suppah an' de bride—oh, de bride! She had on de longest trail an' a white veil all ovah her, an' a wreath ob flowahs, an', oh, it was jess de mos' elegant weddin'!"

"How did the bridegroom look?"

An expression of infinite disgust came into the face of Chloe as she said, scornfully:

"La, missy, dat good-for-notbin', no-'eount niggah nebbah come a-nigh!"—New Lippincott's.

BORN TO LEAD

"You remember young Carpley, who used to have an ambition to be an actor, don't you?"

"Yes."

"Well, he's playing a leading role now."

"You don't say so! By George, I never thought he had it in him!"

"He's with an 'Uncle Tom' company and leads the bloodhounds in the street procession."—Chicago Times-Herald.

A FORMULA OF PAINFUL MEMORY

Last Monday a woman who lives on Morgan Street took her five-year-old son to a photographer's to have his picture taken. She was anxious to secure a good likeness at this particular sitting, because she wished to distribute the pictures among some friends who were then her guests.

The child's idea of the affair, however, did not, apparently, harmonize with that of his mother; for when the man with the camera began to adjust the lens and direct it toward little Edward, that young person set up what was unquestionably a howl.

In vain did the mother call into use her utmost forensic abilities. Edward did not want his picture taken.

"Why, my child," she said, soothingly, "the gentleman won't hurt you. Just smile and keep still a moment and it will be all over before you know it."

"Yes, I know, mama," whimpered the youth, with tears running down his cheeks, "but that's what you told me at the dentist's."—St. Louis Post-Dispatch.

WHEN JUBA HIT IT

"After having supplied a moonshiner in a South Carolina jail with a month's supply of smoking-tobacco," said a government surveyor, "I presumed upon the deed to ask:

"'Didn't you know it was against the law to manufacture moonshine whisky?'

"'I heard that was a law once,' he replied.

"'What do you mean by "once?"'

"'Why, Juba French told me thar was sich a law, but when I asked Jim Truman about it he says that Juba is sich a liar that nobody kin believe him under oath, and so I reckoned I was safe to go ahead. Shoo, but I wonder how Juba come to tell the truth fur that one time!'"—Washington Post.

MI ESSA ON GURLS

Little Willie is blessed with seven sisters of a more or less mature age. He was asked at school to write a short essay on "Girls," and this is what he wrote:

"Gurls are feminine gender, and they wear frocks. They on'y have one pocket, which they can't find. They're awfully fond of grown-up fellers, and can tell when their chins is rough in the dark. Some gurls is funny. They will 'oller and jump in a chair when they see a mouse; but they is awfully strong when they gives a little feller like me a hiding. Gurls sometimes have nice white teeth, and then they allus giggles, just to show 'em. Gurls like fishin', but not putting worms on hooks."—London Answers.

EDITOR AND POET

"I am afraid," said the poet to the editor, "that you don't exactly grasp the depth of the ideas expressed in my blank verse."

"Perhaps not," said the editor. "They may be beyond my mental reach."

"I think you wrong yourself," said the poet, kindly. "Let me test the point. Here is a line at random: 'She swiftly passed him down the silent way, and in her path a subtle perfume lingered.' There, that doesn't seem confused to you, does it?"

"Not at all," replied the editor, briskly; "that's easy. You are simply trying to say that a gasolene automobile went down the pike!"—Cleveland Plain Dealer.

PARRIED THE THRUST

A lady had in her employ an excellent girl who had one fault. Her face was always in a smudge. Her mistress tried, without offending, to tell her to wash her face, and at last resorted to strategy.

"Do you know, Bridget," she remarked, in a confidential manner, "it is said that if you wash the face every day in hot, soapy water it will make you beautiful?"

"Will it?" said Bridget. "Sure, it's a wonder ye niver tried it, ma'am!"—Our Dumb Animals.

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Mrs. Slimdiet—"Did you pound the steak well?"

Servant—"Yes, mum."

Mrs. Slimdiet—"And steam the bread?"

Servant—"Yes, mum."

Mrs. Slimdiet—"Well, put some cologne in the butter, and call the boarders to breakfast."—New York Weekly.

SHE EXPECTED TOO MUCH

"Look here, sir!" exclaimed the maiden lady, "I want you to take back that parrot you sold me! I find that it swears very badly!"

"Well, madam," replied the dealer, "it's a very young bird; it'll learn to swear more perfect when it's a bit older."—Philadelphia Press.

COMMERCIAL INSTINCT

"Dad, will you buy me a watch?"

"What for, my boy?"

"Cause Freddy Jones has a dog I want, dad, an' he says he'll change it for a watch."—Boyce's Monthly.

Dr. S. Whitehall, the subject of this sketch, was one of the earliest investigators to recognize the fact that headaches, neuralgias, and nearly all recurring painful nervous attacks, are caused by auto-intoxication, *i. e.*, spontaneous self-poisoning, from the accumulation of imperfectly eliminated poisonous waste products resulting from unhealthy action of the different organs. After having determined this to be the real cause of so many distressing painful afflictions, further research in pursuit of a remedy that would neutralize, dissolve and carry these poisons out of the blood, led on to the discovery of the formula for Me-grim-ine, the most wonderful remedy of its kind, being entirely free from narcotics, yet capable of quickly relieving the most severe headaches, neuralgia, or other acute pain in any part of the body. Desiring that all who wish may give it a trial, we offer 100,000 sample packages of the remedy for free distribution, only asking that you send your address, mentioning FARM AND FIRESIDE.

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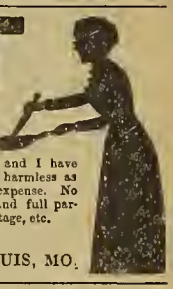

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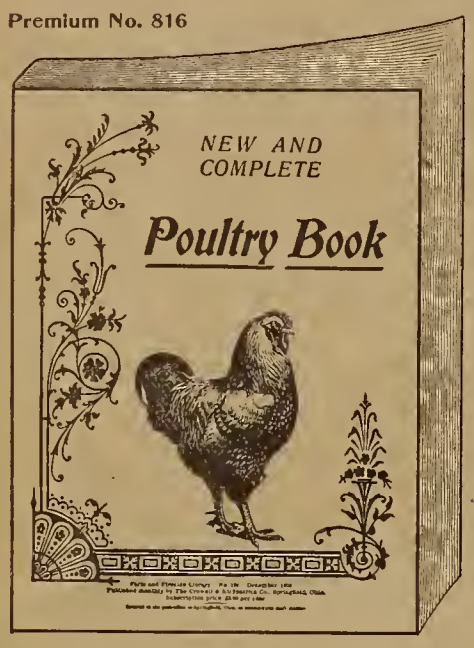

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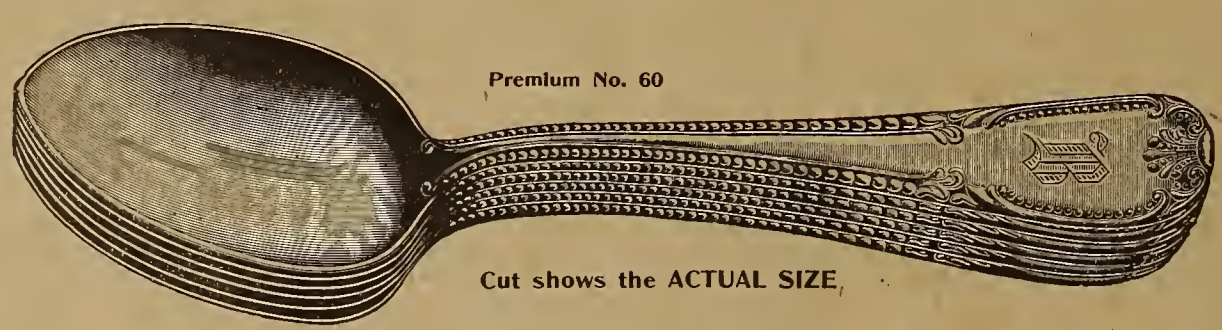

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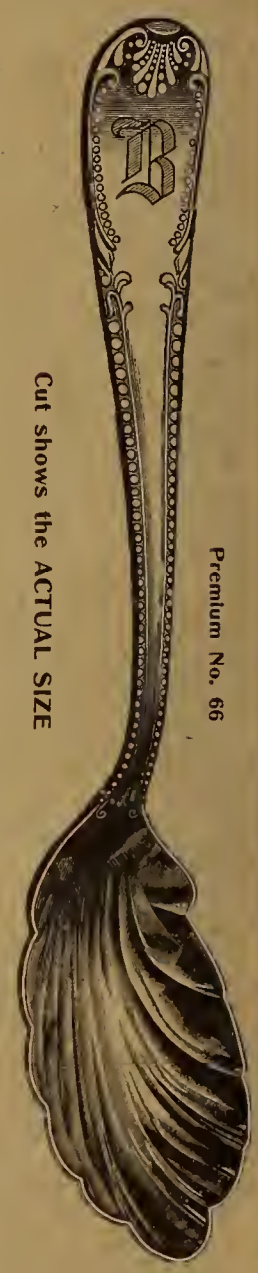

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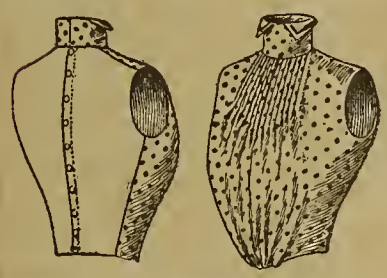

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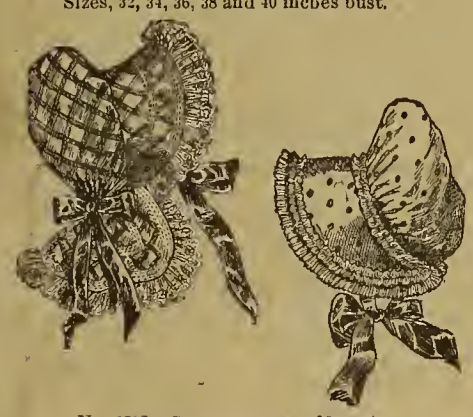

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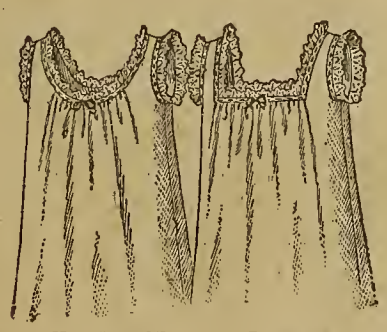

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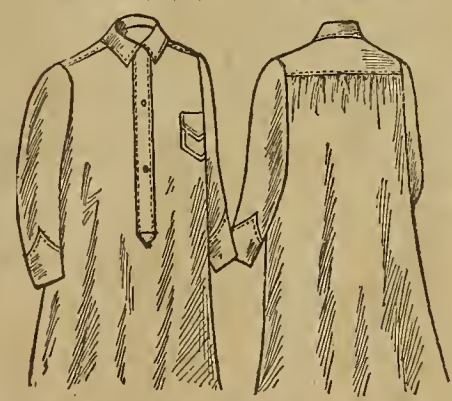

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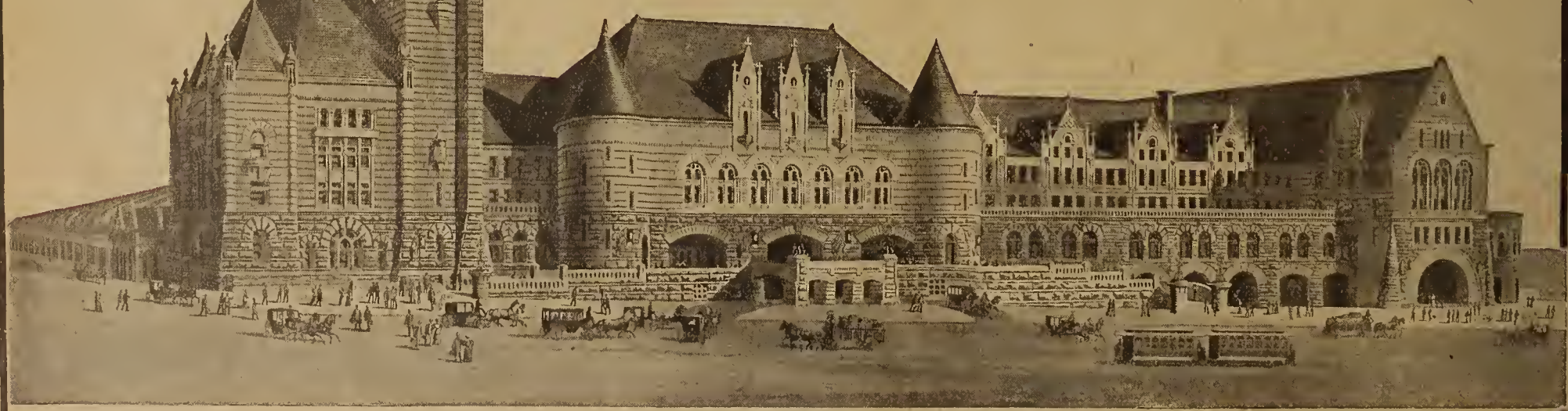

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